THE LIVED EXPERIENCE OF INFANT BONDING IN MOTHERS WITH MENTAL HEALTH AND SUBSTANCE USE PROBLEMS IN A SUPPORTIVE ENVIRONMENT

by

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Abstract

Bonding has impacts on both maternal and infant well-being and likely also on future child development; however, our understanding of this phenomenon remains limited, especially among women with mental health and substance use problems. This study explored the lived experience of maternal-infant bonding in postpartum women with substance use and mental health problems. Using a phenomenological research design, 9 women participated in in-depth, unstructured, open-ended interviews. Interviews were transcribed verbatim and data was analyzed using interpretive phenomenological analysis. Five common themes characterized the women’s lived experience of the phenomenon maternal-infant bonding: Sense of Transformation, Emotional Experience of Bonding, Sense of Connection, Sense of Nurturance, and Sense of Future. Findings are discussed within the context of existing literature on maternal-infant bonding, both in the general population and among women with mental health and substance use problems. Implications for clinical practice and future research are discussed.
Preface

This research was conducted with the approval of The University of British Columbia (UBC) Office of Research Services (ORS), UBC Children’s and Women’s Research Ethics Board, as per certificate of approval number H14-00245. It is the original, unpublished, independent work of the author, Jasmin Abizadeh.
# Table of Contents

Abstract .......................................................................................................................... ii
Preface ......................................................................................................................... iii
Table of Contents ......................................................................................................... iv
List of Tables ............................................................................................................... vii
Acknowledgements ..................................................................................................... viii

## Chapter 1: Introduction ......................................................................................... 1
  - Statement of the Problem ....................................................................................... 1
    - Substance use and mental illness ................................................................. 3
    - Gender and sex ............................................................................................... 4
    - Consequences of maternal mental illness and substance use .................... 6
  - Summary ............................................................................................................. 7

## Impact and Significance of Study ......................................................................... 8
  - Academia. ............................................................................................................. 8
  - Healthcare providers. ......................................................................................... 8
  - Participants ........................................................................................................ 9

## Purpose of the Study ............................................................................................... 9

## Research Question ................................................................................................. 9

## Chapter 2: Review of the Literature ..................................................................... 11
  - Definition of Terms ............................................................................................ 11
  - Maternal-Infant Bonding ................................................................................... 13
    - History of conceptualization of bonding .................................................... 13
    - Other research on bonding .......................................................................... 16
  - Mental Illness in the Perinatal Period ............................................................... 19
    - Qualitative literature on perinatal depression ............................................. 20
    - Summary ....................................................................................................... 22
  - Substance Use in the Perinatal Period .............................................................. 23
    - Qualitative literature on substance use. ....................................................... 23
    - Summary ....................................................................................................... 25
  - Concurrent Mental Illness and Substance Use ................................................. 25
  - Concurrent disorders in the perinatal period .................................................... 26
  - Other Factors Related to the Bonding Process ................................................ 26
    - Attachment theory ....................................................................................... 26
    - Trauma .......................................................................................................... 28
    - Culture .......................................................................................................... 29
    - Gender and sex ............................................................................................. 30

## Limitations of the Literature ................................................................................ 32

## Chapter 3: Research Methodology ...................................................................... 35
  - Research Design ............................................................................................... 35
    - Philosophical assumptions .......................................................................... 35
      - Constructivist paradigm ............................................................................. 35
      - Interpretivist paradigm ............................................................................. 36
    - Feminist methodology ................................................................................... 37
    - Phenomenology ............................................................................................ 38
Sense of transformation ................................................................. 127
Emotional experience of bonding ................................................. 129
Sense of connection ................................................................. 133
Sense of nurturance ................................................................. 135
Sense of future ................................................................. 138
Summary of conclusions ................................................................. 139
Implications for Clinical Practice .................................................... 141
Suggestions for Future Research .................................................... 144
Strengths and Limitations ................................................................. 146
Strengths ................................................................. 146
Limitations ................................................................. 148
Conclusion ...................................................................................... 150
References ...................................................................................... 152
Appendix A: Poster Advertisement .................................................... 178
Appendix B: Consent Form ................................................................. 179
Appendix C: Screening Protocol ............................................................ 185
Appendix D: Interview Guide ................................................................. 188
Appendix E: Resources ...................................................................... 191
List of Tables

Table 1: Participant Demographic Overview ................................................................. 69
Table 2: Super-Ordinate Themes and Sub-Themes ............................................................ 70
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Chapter 1: Introduction

The current study employed a phenomenological method to explore the meaning of lived experience of maternal-infant bonding in mothers with substance use and mental health problems. This study sought to answer the following research question: “How do mothers with substance use and mental health problems experience bonding with their infant?”

Statement of the Problem

Given that there are 385, 937 births per year in Canada (Statistics Canada, 2014) and pregnancy is one of the most common developmental life-events among women (Brockington, 2004), maternal-infant bonding is an important process to understand as part of the early mother-child relationship. The concept of maternal-infant bonding is widely used among clinicians and researchers, yet to this date it lacks a universal definition. Without a proper definition, our understanding of bonding is limited and its boundaries with related concepts such as attachment are blurred. To this date, many scientific papers use the terms bonding and attachment simultaneously, or confuse their distinction (Altaweli & Roberts, 2010; Johnson, 2013; Wittkowski, Wieck, & Mann, 2007; Young, 2013). Two recent concept-analyses were conducted to clarify the concept of maternal-infant bonding (Altaweli & Roberts, 2010; Bicking Kinsey & Hupcey, 2013), yet more research has to be done to support their findings, which differ from each other in some elements, and “to further clarify and advance the concept” (Bicking Kinsey & Hupcey, 2013, p. 1314). Kennell and Klaus (1998), the team credited with popularizing the term bonding in the 1970’s, have offered a way of conceptualizing bonding separate from attachment that may be helpful at least for the purposes of this study. They suggested that bonding is in reference to the emotional tie from the parent to the infant, whereas attachment refers to the bidirectional tie between the primary caregiver and the infant. Since the
purpose of this study is to understand the lived experience of maternal-infant bonding from the mother’s perspective, we will adapt this definition going forward. This is not without recognizing the limitations of this definition by Kennell and Klaus, partly due to its simplicity, for a seemingly complicated concept.

One of the main reasons why gaining a better understanding of the concept of maternal-infant bonding is so important is that it is often linked to specific maternal and child outcomes (Kennell & McGrath, 2005; Schenk, Kelley, & Schenk, 2005; Tessier et al., 1998). If research can advance to gain an understanding of which factors impact bonding, which elements further and hinder it, and what its outcomes are, clinicians would be able to use this knowledge when working with mothers and their babies and support the bonding process as necessary.

Bonding is a complex process which takes place at various stages during the perinatal period, including pregnancy and the postpartum period. In an early study by MacFarlane, Smith, and Garrow (1978), women reported feeling bonded to their infants at various stages, with 41% of women first feeling love for their baby during pregnancy, 24% at birth, 27% during the first week, and 8% after the first week. Interestingly, in MacFarlane’s study bonding was evaluated based on when mothers felt love for their baby (MacFarlane et al., 1978). There is research to support this, in that love has been identified as one of the key elements of bonding (van Bussel, Spitz, & Demyttenaere, 2010). Some studies have found that the first hour(s) after birth may be particularly important in facilitating the bonding process (Klaus & Kennell, 1976), but this concept of a sensitive period has been questioned and Kennell and Klaus have since suggested that it may not be critical, but that it could promote bonding (Klaus & Kennell, 1982; Kennell & Klaus, 1998).
Further adding to the complexity of our understanding of maternal-infant bonding, a variety of factors can impact this process. An example of this is a mother’s own early bonding experiences. A study by Suchman, McMahon, Slade, and Luthar (2005) examined how early bonding experiences, depression, illicit drug use, and perceived social support in women with substance use problems influence the family environment. The authors used an attachment theory framework to provide a way of conceptualizing child development as a complex process that builds on past experience while also transforming it (Sroufe, Carlson, Levy, & Egeland, 1999). The authors’ focus on the mother’s own bonding experiences seemed crucial, as children form mental representations from their early relational experience with caregivers which guide the nature and course of relationships throughout life (Bowlby, 1982). Results from this study suggested that the way the women perceived their relationships with others impacted their style of parenting. This is in line with previous research that has shown that parenting problems in women with substance use and mental health problems are often related to multiple psychosocial risk factors, some of which are specific to the woman’s early family environment, and others which occur on an individual (e.g. mental illness) and social level (Beckwith, Howard, Espinosa, & Tyler, 1999; Cochran & Niego, 1995; Hans, Bernstein, & Hensen, 1999; Sroufe et al., 1999).

Given the fact that contextual factors likely play a significant role in how bonding is experienced, we turn our attention to a brief overview of a series of, yet not exhaustive list, of such factors.

The following sections will review possible contextual factors that are important in the understanding of maternal-infant bonding.

**Substance use and mental illness.** In the general population, substance use and mental illness often co-occur, thus perpetuating a cycle of illness. Individuals with mood disorders are more likely to use substances and become dependent compared to healthy controls (Centre for
Addiction and Mental Health [CAMH], 2012). Similarly, people using substances are also more likely to suffer from mood disorders. Concurrent disorders, such as substance use and mental illness, are linked to higher rates of morbidity and mortality, treatment non-adherence, and lower rates of recovery (Brady & Sonne, 1995). The exact causes for concurrent disorders are unknown, with some explanations focusing on overlapping predisposition and others on mutual causality (CAMH, 2012).

**Gender and sex.** Women in particular are at an elevated risk of experiencing certain mental health conditions more than men (e.g. depression, bipolar disorder II; American Psychiatric Association [APA], 2013) and are also more prone to developing substance use problems faster than men (Green, 2006). They often face more barriers as they seek treatment for substance use (e.g. shame, family responsibilities, economic shortcomings, etc.; Green, 2006). Additionally, for many of these women, traumatic experiences play a role in triggering or maintaining their substance use and mental health problems (Macrory & Boyd, 2007; Van Den Tillaart, Kurtz, & Cash, 2009). These concurrent conditions, which often remain untreated or only partially treated, negatively affect women emotionally, physically, and mentally.

Not only are women at an increased risk of many mental health problems compared to men, but this risk increases during their reproductive years (Soares & Zitek, 2008), potentially impacting their ability to mother their child(ren). The postpartum period in particular is a time of increased risk for mental illness, with 1 out of 7 women experiencing postpartum depression (Gaynes et al., 2005). There are various hypotheses about the etiology of postpartum depression, including but not limited to biological explanations, such as increased sensitivity to the drop in hormones at birth (Bloch et al., 2000).
Pregnancy in itself can also be a time of temporary abstinence from substance use, or for some women it may be the beginning to their journey of recovery. The postpartum period can be a time of relapse for women who were using substances prior to or during pregnancy. Though prevalence rates of substance use during the perinatal period vary, a recent Canadian survey found that 6.7% of mothers used street drugs in the three months before pregnancy and 1% during pregnancy (Public Health Agency of Canada, 2009). Likely, this rate is even higher when other substances, such as alcohol, prescription painkillers, and cigarettes are included. Underreporting of substance use in the perinatal period also likely influences reported prevalence rates.

For those women who experience depressive symptoms before the onset of substance use, symptoms of depression tend to continue to persist even during periods of abstinence from substances (Ambrogne, 2007). In addition to the physical and emotional impact of substance use and mental illness, mothers with mental health and substance use problems are often faced with feeling stigmatized and discriminated against, leaving them feeling even more vulnerable. This can become a threat to the attachment and bonding process with their child, while feelings of associated shame and guilt can lead to continued use of substances (Covington, 2008).

Many treatment programs that are available for women with mental health or substance use problems are not equipped to address concurrent disorders, are not trauma-informed, non-gender specific, and not comfortable in working with women during their perinatal period (Krausz, 2010). Impaired access to services and lack of help-seeking behaviour due to the stigma and shame associated with mental health and substance use are some of the consequences of the concurrent disorders.
Consequences of maternal mental illness and substance use. There are both short- and long-term physiological and psychological developmental implications of untreated mental illness in the perinatal period (Murray & Cooper, 2004). Untreated maternal depression has been found to be related to negative expression and affect in infants (four times higher compared to infants of non-depressed mothers), and a three times increased risk of anxiety and depressive symptoms in later life (Cohn, Campbell, Matias, & Hopkins, 1990; Weissman et al., 2006).

Infants may also display more avoidant and disorganized attachment (Korja et al., 2008; Martins & Gaffan, 2000), which has been linked to internalizing and externalizing behavior problems in toddlers (Madigan, Moran, Schuengel, Pederson, & Otten, 2007; Trapolini, McMahon, & Ungerer, 2007). In terms of physiological impact, higher cortisol levels in prenatally depressed women seem to be associated with negative growth development in the infant, such as delayed fetal growth, prematurity, and impaired fetal brain development (Field & Diego, 2008; Van den Bergh, Mulder, Mennes, & Glover, 2005; Weinstock, 2005). Additionally, infants tend to mimic their mothers’ levels of higher cortisol and lower dopamine and serotonin levels, putting their bodies into a state of havoc (Field et al., 2004).

Substance use in women during pregnancy and postpartum also has negative consequences for the child in the short- and long-term (Mayes, 1995). Substance using mothers have been shown to have poor sensitivity and responsiveness to their infant’s emotional cues and may appear more provocative and intrusive (Burns, Chethik, Burns, & Clark, 1997; Hans et al., 1999; Mayes et al., 1997; Rodning, Beckwith, & Howard, 1991). Some women have been described as threatening, overly involved, and authoritarian, while others appear permissive, neglectful, and display poor involvement and low tolerance (Bauman & Dougherty, 1983; Harmer, Sanderson, & Mertin, 1999; Mayes, 1995; Suchman & Luthar, 2000). However,
parenting quality varies considerably (Goodman, Hans, & Cox, 1999; Hofkosh et al., 1995; Rodning et al., 1991). Some studies have found that women with substance use problems may have a limited understanding of basic child development issues and experience ambivalence about having a child and whether to keep their baby (Mayes, 1995; Murphy & Rosenbaum, 1999). Unfortunately, this group of women more frequently lose custody of their children, who then enter the foster care system, compared to other mothers (Mayes & Bornstein, 1996).

**Summary.** To date, our understanding of the concept of maternal-infant bonding is limited, even with forty years of research and wide clinical uptake of this concept. Given what we know about the potential negative impacts on child development if maternal-infant bonding is impaired, better understanding of this phenomenon has clinical value. Additionally, since we know that bonding is impacted by a series of factors, such as mental health and substance use problems, we need to look at the contribution of specific contexts in the experience of maternal-infant bonding. To date, the majority of the literature on the quality of parenting among mothers with substance use and mental health problems is situated from a problem-based lens.

Pregnancy and childbirth are common developmental life-events for women, yet they are also fraught with mental health and substance use problems for some women. Their experience of bonding is often assumed to be impaired and they are evaluated as unfit mothers who are not able to bond with their baby. Though this may be true for some women, including women who do not struggle with mental health and substance use problems, it is important to be able to understand the lived experience of maternal-infant bonding from the mothers themselves. This provides them with a voice to share their experience as they see it and not as we assume it to be.

With a better understanding of the experience of maternal-infant bonding, and especially in this sub-group of women, the hope is that with more research and increased clinical
knowledge it can lead to better being able to support both mother and child during the perinatal period.

**Impact and Significance of Study**

The impact of this study is multifold and has relevance for researchers, mental health care providers, and participants themselves.

**Academia.** The findings of this study begin to address one of the current gaps in our understanding of the experience of maternal-infant bonding and especially within a sample of women with concurrent mental health and substance use problems. This was done by gathering information on the shared experiences and commonalities of maternal-infant bonding in the study population. Ideas for future research are presented in the discussion section. Findings of this study will also be written up for publication in a peer-reviewed journal, to increase access to findings among the academic community.

**Healthcare providers.** The study findings will be shared with interested healthcare providers who are working with women who have substance use and mental health problems. Lessons learned from this study are directly applicable to working with postpartum women in the field of Counselling Psychology, as well as related healthcare professions. Shifting the focus from a negative lens to a more balanced and informed viewpoint was meant to provide healthcare workers with a richer understanding of the phenomenon as experienced in the study population, which is an important first step in leading to working collaboratively with perinatal women with substance use and mental health problems. Gaining a better understanding of the experience of maternal-infant bonding has implications for the supports that could be provided for the establishment and maintenance of maternal-infant bonding in an often ignored and marginalized subset of women.
**Participants.** Participants in this study had the opportunity to create meaning and sense of their lived experience of maternal-infant bonding in their own words. The study provided a voice for the participants, which may have helped in the process of normalizing their experiences, without repeating the common experience of feeling judged and isolated. Highlighting and supporting understanding of an important and universal experience that is often neglected in this population, may have helped reduce stigma and humanize their experiences. Sharing the findings with those participants who are interested in receiving a summary of the findings, will provide a means to thank them for sharing their experiences, letting me be a part in the co-creation of what their lived experience means to them, and for engaging in a reflective process. Sharing study findings with them may further deepen their understanding of their own experience as part of their own process of reflection.

**Purpose of the Study**

The purpose of the study was to address the current gap in the academic literature and in our clinical understanding of the experience of maternal-infant bonding in postpartum women with concurrent mental health and substance use problems. It was hoped that this would be closely linked to being able to provide a voice to this group of women who have often been marginalized and silenced.

**Research Question**

This study addressed the following research question: “How do mothers with substance use and mental health problems experience bonding with their infant?” The purpose of this question was to explore the lived experience of bonding in the participants. Participants all had a unique set of experiences as new mothers, and as mothers experiencing mental illness and substance use problems. An exploration of their experiences of bonding with their infant was a
starting point in better understanding the phenomenon of interest in this specific population. The question attempted to generate answers to the identified gap in the literature by providing themes of mother-infant bonding. It was hoped that these themes would reflect multiple perspectives of the participants in this study and would thus help create a common understanding of maternal-infant bonding, including the meaning that participants assigned to this experience. Expected outcomes were that the themes would speak to the shared experience of bonding in new mothers, and particularly speak to the experience of bonding in mothers with mental health and substance use problems.
Chapter 2: Review of the Literature

The literature review will provide an overview of bonding in women in the general population and then focus on the phenomenon of interest, maternal-infant bonding, in women with mental health and substance use problems in the perinatal period. In order to contextualize the clinical nature of this unique population, an overview of mental illness in women during pregnancy and the postpartum period, as well as substance use during this time period, will follow. Several variables that may additionally impact the bonding process will be reviewed, including attachment, trauma, culture, and gender and sex. Lastly, deficiencies in the literature will be explored.

Definition of Terms

There are several terms that were pertinent to this research. Definitions of these terms for the purpose of this study are crucial so that the reader has a shared understanding of how they were used in context of this research.

For purposes of this research, the phenomenon of interest, maternal-infant bonding, referred to the bonding process between a mother and her infant and specifically the emotional tie from the parent to her child during the postpartum period. Maternal-infant bonding was further defined as “the special, close relationship between the mother and her child” (Altaweli & Roberts, 2010, p. 558).

The period of time that was important for the participants in this research was called the postpartum period. This is referred to clinically to mean up to one year postpartum, but only up to four weeks postpartum according to the Diagnostic and Statistical Manual of Mental Disorders (APA, 2013). For purposes of this research, participants were recruited up to six months
postpartum, based on the limited time mothers stay at the Fir program in the postpartum period (the place of recruitment, as later described in Chapter 3 under participant recruitment).

The terms *mental illness* and *problems with mental health* for this research referred to any self-reported symptoms of mental illness, including but not limited to symptoms of depression and anxiety. These terms are not meant to be synonymous with the more medical and clinical definition proposed by the Diagnostic and Statistical Manual of Mental Disorders (APA, 2013). For recruitment purposes, if the participant perceived that they have had or were currently experiencing problems with any of their reported symptoms in a way where their life was negatively affected; they were considered to be eligible for this research. For purposes of recruitment, no official diagnosis of mental illness was needed as their subjective experience was determined to be sufficient.

The terms *substance use problems* or *problems with substance use* referred to self-identified problems with any form of substance use according to the participant’s own viewpoint. These terms are not meant to be synonymous with the more medical and clinical definition proposed by the Diagnostic and Statistical Manual of Mental Disorders (APA, 2013). Even though medical records were not accessed, participants in this study all had a verified diagnosis or noted problem with substance use, which allowed them to receive treatment at the hospital. In this research, the type of substance use or the amount was not the focus; what was important was whether the participant herself felt that she has or has had a problem with substance use in a way where her life had been negatively affected.

The term *concurrent disorder* was used to acknowledge that participants in this study previously or at the time of the interviews were experiencing problems with both self-identified mental illness and substance use. Usage of this term was meant to reflect the presence of both
symptoms at the same time. Even though women were not diagnosed in this study, I am aware that this term has a clinical connotation outside of this research. I also recognize that labelling a normal reaction to an abnormal event (e.g. using substances as a result of trauma) pathologizes this process and may perpetuate certain assumptions (e.g. regarding blame, treatment, etc.). This term will not be used in interviews with the participants, and instead words like both and also will be used instead.

Maternal-Infant Bonding

History of conceptualization of bonding. The concept of maternal-infant bonding was first described by Winnicott (1957), who noticed that most mothers tended to be preoccupied with identifying their children’s needs and then attending to these. This concept was further described by Klaus and Kennell (1976) and gained popularity in the 1970’s, partly as it provided an answer to counter growing child abuse literature at that time and partly as mothers were demanding to be more involved in the birthing process at hospitals (Eyer, 1994). The concept of bonding generated many articles in the 1970’s, mostly stemming from pediatrics, and making claims to support a biological basis to bonding and the existence of a sensitive period in which the mother needed to be with her baby and hold it skin-to-skin for proper bonding to occur. In the 1980’s, criticism of the bonding literature emerged, mostly grounded in pointing out flaws in methodology and conceptual problems (Arney, 1980; Chess & Thomas, 1982; Goldberg, 1983). Claims about the existence of a sensitive period, bonding being a natural process linked to a biological basis, and its many impacts on the child’s future development and ability to prevent things like child abuse, were mostly dismissed, or at least questioned (Myers, 1984; Svejda, Campos, & Emde, 1980). A paper by Eyer (1994) provides an extensive overview of the bonding literature in those two decades. It concludes with the following statement:
The term [bonding] itself has migrated even further from its original basis, illustrating the profound social need for the concept. Bonding persists as a new word with a very general meaning, one that operates at the level of romance, as an idealized means of automatic instant social connection. In fact, bonding appears to be like Velcro: apparently able to attach itself to almost any form of social connection. (p. 91)

Kennell and Klaus published several papers in response to much of the criticism that was voiced about the concept of bonding (Anisfeld et al., 1983; Kennell & Klaus, 1984). Kennell and Klaus (1984) acknowledged that though they felt that a sensitive period was important for maternal-infant bonding, it may not be the only determinant to ensuring future well-being of the child. They further explained that they did not mean to imply that it was the mother’s fault if she was not able to bond with her baby in the immediate postpartum period, or if her child would end up having some problems developmentally. They also criticized some of the methods used by a series of authors who questioned their work and provided an overview of studies that had found support for their original claims.

Many studies have since been published that support the notion of bonding (Johnson, 2013; Kennell & McGrath, 2005; Young, 2013). Of interest, two concept analyses have been undertaken to clarify the definition of the concept of maternal-infant bonding (Altaweli & Roberts, 2010; Bicking Kinsey & Hupcey, 2013). They found somewhat different results; however, they provide an overview of what bonding most likely encompasses and how it could be defined if there were to be a commonly agreed upon definition. Results from Altaweli and Roberts (2010) showed that “maternal-infant bonding can be defined as the special, close relationship between the mother and her child that occurs during the sensitive period. This is a unique experience which ties the mother to her child” (p. 558). Results further showed that skin-
to-skin contact, breastfeeding, and having the baby close to mother all facilitated the bonding process, while love and attachment were identified as key consequences of bonding. They also stated that maternal-infant bonding included an emotional aspect, which they defined as kissing, cuddling, and gazing at the baby among others. Interestingly, the work by Altaweli and Roberts (2010) was later criticized by Bicking Kinsey and Hupcey (2013), stating that the paper included several statements that described attachment behaviours, thus further confusing their distinction.

In the concept analysis of maternal-infant bonding by Bicking Kinsey and Hupcey (2013), the authors proposed the following definition for bonding:

Maternal–infant bonding is a maternal-driven process that occurs primarily throughout the first year of an infant’s life, but may continue throughout a child’s life. It is an affective state of the mother; maternal feelings and emotions towards the infant are the primary indicator of maternal–infant bonding. Behavioural and biological indicators may promote maternal–infant bonding or be an outcome of maternal–infant bonding, but are not sufficient to determine the quality of maternal–infant bonding nor are these indicators unique to the concept. (p. 1319)

Findings from their analysis showed that maternal-infant bonding was best described in terms of its affective element and as best describing a mother’s feelings towards her baby. They did not find much evidence for a behavioural or biological component of bonding. Results also showed that bonding and attachment were two separate concepts, which should not be interchanged.

Additionally, as originally described by Klaus and Kennell (1976), definitions of bonding continue to include both affective and behavioural domains, though there is less clarity about the uniqueness of which behaviours are specific to bonding versus related concepts.
**Other research on bonding.** Maternal bonding is said to develop over time and is not completely established at birth; however, the time after birth may be critical for establishing a bond (Klaus, Kennell, & Klaus, 1995). Some consider the first few hours after childbirth to be the most critical in terms of bonding and see them as a window of opportunity (Fegran, Helseth, & Fagermoen, 2008; Henry, Richard-Yris, Tordjman, & Hausberger, 2009). Studies vary greatly in regards to this timeframe, with some reporting that mothers tend to feel happy and satisfied and able to express emotional expression towards the infant within the first day after delivery (Fleming, Ruble, Krieger, & Wong, 1997), and others report that up to 50% of women may not feel emotionally connected this immediately and may even feel indifferent during the first week (MacFarlane et al., 1978).

There are several factors that may positively and negatively impact the bonding process, which is considered to be important in the child’s healthy emotional, psychological, and physical development. Both parents can influence the bonding process and a healthy bond may even serve as a protecting factor during the child’s development and as a basis for future bonding experiences. Factors that impact perception of bonding may include feelings of love, positive emotions, feeling competent, and levels of partner support (Wittkowski et al., 2007). Love has even been described as the key component that is found in the maternal-infant bond (van Bussel et al., 2010). For some women, being able to see and touch their infant once it is born increases their feeling of love for their child; for others, rituals such as seeing an ultrasound image, feeling the fetus moving, picking out a name, talking to the fetus, and feeling the fetus move to specific stimuli facilitates the bonding process even in pregnancy (Young, 2013). In the postpartum period, positive bonding for the infant may be facilitated by skin to skin touch, eye contact, hearing their mother’s soft and soothing vocal tone, and familiarity with the mother’s smell.
(Feldman, Gordon, & Zagoory-Sharon, 2011). Early bonding experiences likely support the development of a strong attachment and future emotional, social, and developmental milestones (Bowlby, 1977).

Women are often faced with expectations of having to bond immediately once they know they are pregnant and later when they have given birth and are faced with societal pressures surrounding this, in spite of the individual physical, psychological, and biopsychological factors that contribute to this process. This can lead to feelings of incompetence and lead to the “muting of voice, leaving inner feelings of sadness and isolation” (Gilligan, 1995, p. 124). Mothers with mental illness may fear that they are unable to love their child or love him or her adequately enough and may experience indifference (Chalmers & Chalmers, 1986). Some authors have examined a subset of women with postpartum depression who have experienced extreme difficulties in the bonding process, including mild bonding disorders in which the woman expressed disappointment about her feelings for the infant (e.g. ambivalence, estrangement, etc.), rejection of the infant, and pathological anger towards the infant (Klier & Muzik, 2004). Kumar (1997) found similar results and described depressed women as having a “catastrophic failure to love one or more of their babies” (p. 175). These conceptualizations of the bonding process in women with mental illness further increase the pressure on these women to develop a healthy bond with their infant.

A recent quantitative study explored the effect of ruminative thinking on postpartum depression and mother-infant bonding (Müller, Teismann, Havemann, Michalak, & Seehagen, 2013). Eight-four pregnant women were recruited and assessed during pregnancy and the postpartum period. Findings showed that ruminative thinking impaired the mother-infant relationship, but did not predict postpartum depression. Mothers felt more uncertain about their
relationship with their infant, experienced unproductive repetitive thinking, and felt more distant from their child, less content with having a child, and more anxious in caring for their child.

The literature on maternal-fetal bonding and attachment in women using substances is scarce, with most studies referring to attachment between the mother and infant and not differentiating between bonding and attachment. Thus, studies focused on attachment are included as part of the literature review, in the absence of a vast amount of studies on bonding in this population. Quantitative studies that have been conducted in this area suggest that attachment may play a role in reducing prenatal alcohol consumption (Condon & Hilton, 1988) but that methadone treatment may be related to lower attachment scores in pregnant women compared to non-substance using women (Mikhail, Youchah, DeVore, Ho, & Anyaegbunam, 1995). Others found that cognitive and affective attachment may be similar in women addicted to opiates and those without addiction (Conte, Mazzoni, Serretti, Fundarò, & Tempesta, 1994; Williams-Peterson et al., 1994). In two qualitative investigations, women felt guilty about drug use during pregnancy and occasionally redirected feelings of anger with others toward the fetus in a phenomenological study of 11 women (Armstrong, 1992), while a grounded theory study found that women engaged in harm reduction strategies as altruistic attachment behaviours (e.g. using less drugs, taking vitamins, etc.; Kearney, Murphy, Irwin, & Rosenbaum, 1995). In another study, by Shieh and Kravitz (2002), three dimensions of maternal-fetal attachment were explored in pregnant women who used illicit drugs. This triangulated study used semi-structured interviews with 40 participants. Findings showed that cognitive attachment revolved around acknowledging the fetus as an individual and knowing the baby by relating it to self and others, affective attachment was about feeling strong affection but also guilt and finding enjoyment but also emotional discomfort in fetal movement, and altruistic attachment was fraught with
conflicting feelings such as uncertainty and hope and feeling uncomfortable but worthwhile. Maternal-fetal attachment was not a phenomenon that was present or absent, but a struggle between guilt, concern, and uncertainty.

The literature on maternal-infant bonding is diverse, yet often intertwined with the concept of attachment. There seems to be some understanding of what furthers and hinders the bonding process for all women, but women with mental illness and substance use problems may additionally face unique challenges during this process.

**Mental Illness in the Perinatal Period**

Pregnancy and the postpartum period are often thought of as a time of happiness and joy; however, it can also be fraught with sadness, worry, and despair. The prevalence rate of depression during this time period is 10-15% (O’Hara & Swain, 1996), with the DSM-5 now recognizing that mental illness can occur both in pregnancy and the postpartum (APA, 2013). Women more commonly experience *baby blues*, which have their onset in the immediate postpartum period and only tend to last a few days to a week (Hansen, 1990). These mood swings affect up to 80% of women. Symptoms are similar to those experienced in women with Major Depressive Disorder during this time, but they are only experienced temporarily in comparison.

Research on postpartum depression has largely been quantitative and stems from a positivist worldview, with only a few studies examining depression in the perinatal period through qualitative means (Beck, 1992; Mason, Rice, & Records, 2005; Records & Rice, 2002; Rose, 1992; Wood, Thomas, Dropleman, & Meighan, 1997). Quantitative and qualitative studies are inherently both useful, and their use depends on the type of research question that is being examined. However, due to the heavy emphasis on quantitative methods in researching
postpartum depression, a more subjective, in-depth understanding of women’s experiences was limited in the past. Instead, the focus of medical, psychiatric, and experimental psychology models has been on the epidemiology and etiology of mental illness in the perinatal period (O’Hara & Swain, 1996; Lane et al., 1997). Historically, medical models were perceived by some to individualize and pathologize women’s distress and marginalize their experience (Mauthner, 1999). Consequently, women’s experiences were assumed to be due to deficiencies or circumstances pertaining to the mother herself, releasing any responsibility from those around her and society as a whole (Mauthner, 1999). Further, many held the belief that being depressed resulted in women being incapable of meaningful insights into their experience or to express trustworthy accounts of their feelings, thus they were not asked directly about their experience (Small, Brown, Lumley, & Astbury, 1994). Women in general had been disregarded as a source of knowledge and their perceptions and subjective experiences were not inquired about in most studies in the past. The focus on the medical model in conceptualizing perinatal illness has been challenged by social scientists, including those using a feminist framework (Mauthner, 1999). This is reflected in a shift to studying women’s subjective experiences, meanings of these experiences, and their own views on its causes, consequences, and needs for treatment.

**Qualitative literature on perinatal depression.** The qualitative literature that has been conducted on mental illness in the perinatal illness is helpful in further contextualizing women`s experiences. Beck (1992) conducted an early study of the lived experience of postpartum depression using a phenomenological approach. Seven women participated in in-depth interviews and findings speak to the struggles the women were experiencing. Their experience of postpartum depression was described as “a living nightmare filled with uncontrollable anxiety attacks, consuming guilt, and obsessive thinking” (p. 166). These mothers felt lonely,
emotionless, feared a loss of a normal life, and thought about harming themselves and their babies.

Mason et al. (2005) explored the lived experience of postpartum depression in seven women. The authors used a psychophenomenological design to study the life experiences the participants felt played a role in their postpartum depression. Findings showed that women made particular attributions to their childbirth experience, during which they feared a loss of control and being victimized, reminding them of previous experiences with abuse and situations where they felt victimized. The women felt that childbirth was re-traumatizing to them and contributed to their postpartum depression, during which they felt emotionally overwhelmed.

Mauthner (1999) conducted interviews with 40 postpartum women to allow them to describe their experiences of pregnancy and the postpartum period in their own words. The author undertook this research as a response to the conceptualization of postpartum depression in the existing literature as a pathological response to motherhood, particularly in the quantitatively focused articles. She saw postpartum depression as a normal response to motherhood and closely connected to losses of identity, autonomy, independence, power, and paid employment. Findings confirmed that responses to motherhood varied greatly, and women tended to feel ashamed of sharing their feelings with others, out of fear that they would be judged as a bad mother. The author suggested that a relational re-framing of postpartum depression may be helpful in understanding this experience, as a result of women being unable to express and validate their feelings within non-judgmental and supportive relationships and cultural contexts.

Bliszta, Ericksen, Buist, and Milgrom (2010) conducted a qualitative study using focus groups to investigate women’s experiences of postpartum depression and related beliefs and attitudes which may serve as barriers to care. Forty women participated in this study. Some of
the pertinent themes that were identified in the study included stigma and denial, poor mental health awareness and access, interpersonal support (modeled behaviour of help-seeking within family of origin and shift in power balance with current partner), baby management (leading to feelings of parenting inadequacy), help-seeking and treatment experiences, and relationship with healthcare professionals (being validated or silenced). Women’s shame, disappointment, and denial were barriers in accessing help, including their own negative attitudes towards acknowledging their struggles. The authors suggested that healthcare professionals need to learn more about the experience of postpartum depression so that they can better support these women.

Van Den Tillaart et al. (2009) used a feminist qualitative approach in their study to allow women with a mental health diagnosis to be able to describe and share their experiences with the healthcare system. This study did not use a perinatal sample but offers important lessons learned in regards to women’s experiences of powerlessness, marginalized identity, and silencing of their health concerns when interacting with healthcare professionals. Women encountered incomplete care and felt that they were invisible and that their voices were being ignored, resulting in fragmented care which placed their physical health at greater risk.

**Summary.** The literature on mental illness in the perinatal period tends to be quantitatively focused, but this trend is shifting over time. With this shift, women are starting to be recognized as contributing to knowledge and as sources of knowledge, and are thus being asked about their experience of mothering. The findings from the qualitative studies especially speak to the shame and stigma women with mental health problems face during pregnancy and the postpartum period.
Substance Use in the Perinatal Period

Many people suffer from some level of substance use problem, without meeting full diagnostic criteria for substance use disorder as provided in the DSM-5. This is not an exception among pregnant and postpartum women. For some, pregnancy and parenthood may serve as a motivating factor for women to access treatment services for their substance use for the well-being of their infant and for fear of losing custody of their child (Kerwin, 2005). However, women are often portrayed as having made bad choices in their lives and needing to assume personal responsibility for their actions, while little responsibility is put on to the systems in place or society at large (Reid, Greaves, & Poole, 2008). As a result, even those women who are thinking about reaching out for help or are actively trying to make changes are still being faced with stigma and judgment.

Many of the studies on substance use in pregnancy and postpartum use a quantitative investigation to assess developmental outcomes for the infant and child. However, fewer studies examine the mother’s experience.

**Qualitative literature on substance use.** A study by Gaffney, Beckwitt, and Friesen (2008) included qualitative interviews with 86 women who were mothers and used tobacco. Themes that emerged touched on infant irritability and postpartum tobacco use. Specific themes included not knowing what to do, seeking renewal, seeking relief, and evaluating self. Results suggested that women felt that irritable infant behaviour was triggering for the onset of smoking behaviour.

In a study of 24 pregnant and postpartum women who were using drugs, narratives of change were elicited and findings showed that healthcare professionals need to be aware of when women are engaging in recovery oriented behaviours and provide opportunities for them to make changes (Radcliffe, 2011). The work completed by these women was thought of as participating
in their “moral career” towards motherhood, which was important for them to be acknowledged since they often felt stigmatized.

In-depth qualitative interviews with 28 perinatal women with substance use problems and ten healthcare providers (who also filled out a survey) were conducted to find out about key components needed to reduce depression among perinatal women with substance use problems (Gilchrist, Cameron, Nicolson, Galbally, & Moore, 2012). Findings supported the use of a case management system, providing extended care in the postpartum period, facilitating access to mental health services and substance use treatment, providing parenting support, and making housing a priority. Barriers to treatment were perceived to stem from judgmental attitudes from healthcare professionals and the fear women faced about child protection services.

Reid et al. (2008) examined discourses of substance-using mothers and collected data through focus groups with 25 participants. Participants were presented with real-life vignettes and asked for feedback about the mother’s behaviour, as well as actions taken by legal, media, and health authorities. Emerging discourses were discourses of the bad mother (rights of children and fetuses were paramount), good mother (rights of mother and children were complementary), thwarted mother (rights of others often trumped those of the mother), and addicted mother (rights to health and treatment for mothers), which were ways the women made sense of their lives, though sometimes in contradictory ways. They encountered challenges in wanting to do the right thing for them and their child in a world of stigma, negative attitudes, and perceived unfair practices.

Söderström (2012) conducted a qualitative study to better understand the experience of pregnancy and parenthood in the context of addiction. Fourteen pregnant women with substance use problems participated. Data was collected through thematic focus groups and analyzed using
interpretative phenomenology. Women had a distorted and delayed recognition of pregnancy and experienced strong feelings of ambivalence and guilt. However, they also experienced hope for change that motherhood may bring for them. These experiences impacted the preparatory period that pregnancy tends to provide for healthy mothers, due to the many obstacles and dilemmas faced by these women.

**Summary.** Similar to the literature on mental illness in the perinatal period, the majority of the studies on substance use in this period are also quantitatively based. Similar themes around stigma and shame are also apparent and relevant among women with substance use problems.

**Concurrent Mental Illness and Substance Use**

Concurrent mental illness and substance use is common in the general population, with over 8.9 million experiencing co-occurring disorders, but only 7.4% receiving treatment for both disorders, and 55.8% receiving no treatment at all (Substance Abuse and Mental Health Service Administration, 2002). Most of the studies on concurrent disorders are quantitative in nature and include individuals who meet diagnostic criteria for co-occurring depression and substance use disorder (Ambrogne, 2007). The focus of these studies tends to be around diagnostic criteria, epidemiology, and treatment. Individuals with symptoms of depression, but not meeting diagnostic criteria, are often not included in these studies despite their high prevalence of and impairment in functionality.

One of the few studies in this area highlights the challenges encountered by women with concurrent disorders, especially in regards to treatment. Ambrogne (2007) conducted a qualitative study (ethnography) to elicit experiences of depressive symptoms in non-perinatal women with past histories of substance use and to capture their experiences after taking on a new
identity through abstinence. Findings showed that depressive symptoms seemed to precede substance use and continued to be a problem for women even once abstinence was reached. Women felt that the separation in services for their mental health problems and substance use resulted in fragmented care. They shared stories of accessing psychiatric treatment where substance use was rarely inquired about or addressed, and similarly accessing substance use treatment and being met with the assumption that depressive symptoms would decrease once abstinence occurred.

**Concurrent disorders in the perinatal period.** Perinatal women who use substances may also experience higher levels of depression (up to 45%) compared to non-substance using women (Pajulo, Savonlahti, Sourander, Helenius, & Piha, 2001). Risk factors for postpartum depression (e.g. poor social support, past mental illness, intimate partner violence, etc.) seem to be similar to those for substance use, and for these women, their risk of depression after childbirth is increased (Clare & Yeh, 2012; Gilchrist et al., 2012). Treatment for substance use may also decrease symptoms of mental illness (Massey et al., 2011); however, this is an outcome not often measured in the literature.

**Other Factors Related to the Bonding Process**

Attachment, trauma, culture, and gender and sex all seem pertinent to the experience of maternal-infant bonding. This section will provide a short overview of each of these elements in regards to their relationship to bonding and some findings from the literature.

**Attachment theory.** Though the focus of this study is bonding, it cannot be examined in isolation from consideration of attachment theory. The line between bonding and attachment tends to be blurry in the literature and often both words are used interchangeably. This study
will use the term *bonding* to reflect the emotional tie from the mother to the infant, bringing attention to the mother’s experience in particular.

Attachment theory is based on the notion that there are differences in how a child emotionally attaches to a parent, which influences the child’s perception of self, others, and resources when in need of emotional self-regulation in a time of crisis (Bowlby, 1977). The caregiver’s response to the infant’s needs and distress impacts the type of attachment that is formed and determines whether it is a secure or insecure attachment. A child’s continued experiences of attachment influence beliefs about the trustworthiness and dependability of the caregiver, but also self-worth, which impacts how future relationships are perceived (Bowlby, 1986). Working models of attachment seem to persist throughout adulthood (Bowlby, 1986), though most of the attachment literature is on infancy and childhood.

In terms of assessing attachment in adults, Parker, Tupling, and Brown (1979) examined care and overprotection as two dimensions of parental characteristics that are thought to contribute to the quality of attachment or bonding. Findings supported four possible types of bonding and attachment, including optimal bonding (high care, low overprotection), absent or weak bonding (low care, low overprotection), affectionate constraint (high care, high overprotection), and affectionate control (low care, high overprotection).

Rubin (1984) expanded the work on attachment theory by considering pregnancy as a period of preparing for motherhood and receiving the child into her self-system and into her life. This transition into maternal role identity and maternal-fetal attachment consists of four developmental tasks, including ensuring safe passage, gaining acceptance by others, binding-in to the child, and giving of oneself. This is similar to the viewpoint that conceives maternal-fetal
attachment more as a cumulative process throughout gestation (Caccia, Johnson, Robinson, & Barna, 1991; Wayland & Tate, 1993).

Maternal-fetal attachment has also been conceptualized uniquely as an affiliation and interaction between a pregnant woman and her child (Cranley, 1981). The main attributes relevant to this viewpoint are differentiating self from the fetus, interacting with the fetus, attributing characteristics to the fetus, giving of self, and role taking. Müller (1993) also saw this as a unique and affectionate relationship between a woman and her fetus, in which maternal attitudes and feelings are seen as more salient than behaviours.

In contrast to Müller’s unidimensional viewpoint, Condon (1985) saw maternal-fetal attachment as consisting of three dimensions, including the cognitive, affective, and altruistic dimensions. The cognitive dimension is about wanting to know, understand, or define the fetus (e.g. creating a mental picture of the fetus), the affective dimension is about the pleasure associated with contact or interaction with the fetus (e.g. speaking to the fetus), and the altruistic dimension revolves around the desire to protect the fetus and satisfy its needs (e.g. engaging in prenatal care).

**Trauma.** The role of trauma in regards to infant bonding has been explored in the literature, particularly in regards to intergenerational transmission of trauma. A history of trauma may impact a mother’s ability to offer adequate physical and emotional caregiving, in that there may be limitations to understanding and responding sensitively to her infant (Fraiberg, Adelson, & Shapiro, 1975). It may also be that mothers with a history of trauma become frightened when their own children experience distress without knowing how to regulate those feelings and interpret any disturbance in the caregiver-child relationship as the “child-as-threat” (Schechter et al., 2004, p. 321).
Interpersonal trauma in particular may be more impactful on the mother-infant relationship. Schwerdtfeger and Goff (2007) explored the role of trauma symptoms and exposure on the bonding process to the unborn child in a sample of pregnant women. Results from this quantitative study showed that a history of trauma in itself did not impair maternal-infant bonding, with the exception of interpersonal trauma.

For those women who may experience their childbirth as traumatic, the maternal-infant bond may also be negatively impacted. One study evaluated the effect of post-traumatic stress disorder in 126 women and found that symptoms associated with this had a direct effect on the parent-infant bond (Parfitt & Ayers, 2009). Similar results have been found in qualitative studies, where women with PTSD after childbirth displayed an avoidant/rejecting or over-anxious/protective bond with their infants (Allen, 1998; Ayers, Eagle, & Waring, 2006).

Though not all women with mental illness and substance use have a history of trauma, those who do may additionally face barriers in their process of bonding with their infant. Issues around trust and safety seem key.

**Culture.** The literature on the influence of culture on maternal-infant bonding is scarce. The articles that do examine this aspect were conducted through an attachment lens and not one of bonding. Studies have evaluated the concept of attachment across various cultures, with some finding support for the attachment relationship (Ainsworth, 1967; Van IJzendoorn & Sagi, 1999), and others not finding much evidence of its explanatory power outside of non-Western cultures (Neckoway, Brownlee, & Castellan, 2007).

For example, in Aboriginal cultures, a shared parenting model exists where other caretakers are capable of being attentive and responsive to the child’s needs, instead of a purely dyadic mother-infant relationship (Benzies, 2014). Minde, Minde, and Vogel (2006) also noted
that the measurement of attachment was developed by North American researchers and reflects this cultural bias. Some authors feel that assessment of attachment should be culturally appropriate, including an examination of the fit of the core assumptions of attachment theory across cultures (e.g. Japanese view the concepts of sensitivity, competence, and the concept of a safe base differently that in the United States; Rothbaum, Weisz, Pott, Miyake, & Morelli, 2000). Parental beliefs inherent to their culture may also impact what is valued in the maternal-infant interaction. For example, Japanese mothers expect their children to develop early emotional control, whereas North American mothers are more concerned that their children’s early skills are accepted by others (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980). Interestingly, Minde et al. (2006) examined attachment patterns in children aged 18-40 months living in a South African township and found that cultural traditions were more influential in the way attachment patterns were talked about than the actual parent-child interactions.

Cultural traditions around mothering and bonding vary greatly and impact the way bonding, and in this case attachment, is conceptualized. Assessing healthy mother-infant bonding requires a thorough understanding of what this looks like culturally.

**Gender and sex.** From a biological perspective, studies have examined the biological contributions that seem to be present in the bonding process, including oxytocin production. Maternal peripheral oxytocin levels have been found to be associated with brain activity in response to infant stimuli (Strathearn, Fonagy, Amico, & Montague, 2009), maternal feelings (Feldman, Weller, Zagoory-Sharon, & Levine, 2007), and the quality of caregiving behavior (Gordon, Zagoory-Sharon, Leckman, & Feldman, 2010a, 2010b). Bick, Dozier, Bernard, Grasso, and Simons (2013) also found the same process with oxytocin seems to be relevant for foster mothers, impacting the mother’s brain activity and caregiving behaviour, which are suggestive of
the formation of the maternal-infant bond. In addition to the rise in oxytocin after childbirth, bonding has also been conceptualized to be connected with other neurobiological changes, including changes in the hormonal levels, such as a high level of cortisol and progesterone during pregnancy followed by a decline of progesterone and a rise in estrogen, oxytocin and prolactin after delivery, touch, and breastfeeding begin (Insel, 1992, 1997; Neumann, 2003). Another study examined the brain activity of men and women in response to an infant’s hunger cries, and findings are suggestive of a difference in brain activity between sexes (De Pisapia et al., 2013). This study suggested that women seem to be more prone to interrupt their thought process when exposed to the sound of an infant’s hunger cry, whereas men do not seem to be impacted the same way and do not face any interruptions in thought.

In terms of social roles of mothers, the responsibility of a woman in the infant bonding process was put forth even by Bowlby, whose influences on attachment came from psychonalaytic and evolutionary theories. In this sense, Bowlby believed that the mother was in a privileged role and that primary bonding would occur only with her, through the shared act of nursing (Winnicott, 1971). Women have traditionally filled the role of primary caregiver and some believe that their ability to detect small changes in the infant’s face may have evolved over time to foster and maintain the mother-infant bond (Hahn, Xiao, Sprengelmeyer, & Perrett, 2013). Women bear enormous pressure to be happy during pregnancy and the postpartum period and live up to the expectations set forth for them of being a mother who can do it all. These standards set by society may not be realistic for all or most women. Women who do not feel confident in their ability to take care of their infant, especially when mental health and substance use is a problem, may experience shame and helplessness. The experience of shame and distrust
has been associated with a threat to the maternal-infant bond, whereas the emotions of pride and trust seem connected with a more secure bond (Scheff, 1997).

Women may be biologically and socially inclined to be highly involved and impacted by the bonding process with their infant. Bonding with their infant seems to provoke some changes on a biological level for mothers, while society seems to expect mothers to bond easily and quickly with their infant, as part of society’s greater value system of what defines a good mother.

**Limitations of the Literature**

Several limitations of the existing literature have already been reviewed. The literature on bonding is often not addressed in isolation from attachment, as bonding and attachment are related, yet distinctive, concepts. However, by failing to examine bonding as its own process with variables that facilitate and hinder it, the experience of maternal-infant bonding is not properly understood. Two concept analyses have proposed suggested definitions of maternal-infant bonding (Altaweli & Roberts, 2010; Bicking Kincey & Hupcey, 2013), but more research is needed to agree on one definition that can be used by researchers and clinicians alike.

Another limitation of the literature is the focus of the addiction literature on the physiological and developmental effects on the infant, without thoroughly addressing the experience of the mother. The available literature, though detailed in its descriptions of how mental illness and substance use negatively impact the mother and child, comes from a place of pathologizing the mother, whereas the experience of mothering can have many different discourses, including multiple and contradictory ways of making sense of their lives (Reid et al., 2008).

There are also several limitations in the existing research on concurrent disorders. Most of the literature either focuses on addictions or mental health in isolation. Rarely, does the
existing research examine the experiences of perinatal women who have both mental health and substance use problems. Furthermore, the literature heavily emphasizes the health outcomes of the infant whose mother is experiencing mental health or substance use problems, without acknowledging the experience of the mother. There is limited understanding of how these mothers conceptualize bonding with their infants, what this experience looks like, and what challenges they may be facing or which successes they may be experiencing.

In terms of addictions, the majority of scholarly articles have also focused on the impact of substance use on the growing fetus (e.g. fetal alcohol syndrome; Bhuvaneswar, Chang, Epstein, & Stern, 2007), but have not extensively examined the psychological impact and experience of the mother. The focus of most studies has been on the contribution of one specific substance, even though poly-substance use is quite common (Krausz, 2010). There are a limited number of research projects on concurrent disorders, as research studies often exclude individuals with addictions or mental health to delimit the number of variables to be considered. Questions about how information on concurrent disorders is gathered also become relevant as the primary methodological approach utilized in most studies has been quantitative in nature. Utilizing only one methodological approach limits the depth of findings of these studies. Recent articles of a more qualitative nature have urged the importance of conducting qualitative research to more thoroughly understand the struggles women with concurrent disorders face and how treatment programs can be effective in meeting their needs.

Overall, much of the literature available on maternal-infant attachment, mental illness, and substance use in the perinatal period is helpful in contextualizing this research study. However, limitations exist in understanding the maternal-infant bonding process (versus attachment), the challenges faced by women with both mental health and substance use problems
in regards to bonding, and the complex interplay of variables contributing to the bonding process (e.g. mental health, trauma, culture, gender, etc.).
Chapter 3: Research Methodology

The current study employed a phenomenological method to explore the experience of maternal-infant bonding in women with substance use and mental health problems and the meanings they attributed to this experience. The research question guiding this study was: “How do mothers with substance use and mental health problems experience bonding with their infant?”

Research Design

Philosophical assumptions. It is important to provide an overview of the philosophical assumptions underpinning this research. This research study was informed by an interpretivist/constructivist paradigm as a philosophical and conceptual framework to guide the study (Creswell, 1998).

Constructivist paradigm. In a constructivist paradigm meaning is co-constructed, there are multiple, equally valid social realities, and people construct the realities in which they participate (Charmaz, 2006; Haverkamp & Young, 2007). Constructionism argues that the truth or reality can never be known because an objective world does not exist (Pring, 2004). Reality is seen as an interaction between the subjective and objective, where knowledge is a construction of reality from a specific perspective, which is based on the perceptions of an individual (Crotty, 1998). The active and constructive process of understanding is also embedded within philosophical hermeneutics (Gadamer, 1975), which stands in contrast to objectivity and neutrality in Western psychology. Meaning cannot be observed directly and must be interpreted. This interpretation of the phenomenon in itself is a construction (Charmaz, 2006). A constructivist paradigm acknowledges that subjective meanings are often negotiated socially and historically (Creswell, 2014). This was important for the purpose of this study, as the
participants’ experiences were thought to be embedded within role expectations through their social world and systems of power that were historically and presently relevant. The goal of this study was to allow for the exploration of individual experiences of infant bonding to fully understand the meaning of this phenomenon in the context of the women’s lived experience.

**Interpretivist paradigm.** In an interpretive paradigm, our experiences are assumed to impact the way we conceptualize information (Creswell, 2014). Reality consists of one’s subjective experience of the external world, which is socially constructed. There is no one way of obtaining this knowledge and this process includes language, consciousness, and shared meanings (Myers, 2009). Interpretation then becomes a way of making meaning of the information by drawing inferences (Aikenhead, 1997), with the attempt to understand the phenomenon through the meaning that is assigned to it (Deetz, 1996). Conducting interviews is one way of implementing a meaning oriented methodology that requires the subjective relationship between the researcher and the participant. A research study informed by an interpretivist paradigm needs to put the findings from the analysis in context (Reeves & Hedberg, 2003).

Interpretive research has its philosophical base in hermeneutics and phenomenology (Boland, 1985). Hermeneutics is an underlying philosophy as well as a specific mode of analysis (Bleicher, 1980). Understanding is created by moving from the whole to the part and back to the whole, increasing the understanding of human behaviour in a social context (Gadamer, 1976). The researcher is an active part of the meaning making process, by being a participant observer and engaging in the activities and discerning the meaning of actions as they occur within specific contexts (Carr & Kemmis, 1986).
**Feminist methodology.** This research was also informed by feminist methodology, in order to take steps to eliminate “boundaries that privilege dominant forms of knowledge building, boundaries that mark who can be a knower and what can be known” (Hesse-Biber, 2012, p. 5). It is important to recognize women’s lived experiences in contributing to our knowledge about a particular phenomenon and that this knowledge is socially constructed. These beliefs guided this study’s understanding of the lived experience and meaning of maternal-infant bonding in mothers with mental health and substance use problems. They were also a reflection of my responsibility as a researcher working with a vulnerable and marginalized population.

However, research does not need to be labelled as feminist in order to be gender sensitive (Landman, 2006). Similarly, Morrow (2005) explained her position as a qualitative researcher as one where she is “planted rather firmly in a constructivist/interpretivist paradigm ontologically, with a powerful critical feminist ideological axiology” (p. 250). Thus, I believe there is a way to combine various beliefs about what knowledge is, how it is obtained, and values surrounding this process.

The aim of the inclusion of ideas taken from feminist methodology is to “correct both the invisibility and distortion of female experience in ways relevant to ending women’s unequal social position” (Lather, 1991, p. 71). Researchers need to study topics that have been left unaddressed in the literature and be aware of their own roles and positions in understanding the experiences of the women in the study (Stewart, 1994). There is no one feminist epistemology and an interpretive paradigm is compatible with feminism (Stacey & Thorne, 1985; Thompson, 1992; Westkott, 1979). This study used unstructured, in-depth qualitative interviews, which are seen as valuable in feminist research (Oakley, 1981), as they support building a relationship with the participant, exploring topics that are relevant to them, and reaching a depth of topics that may
otherwise be overlooked (Hesse-Biber, 2007). The open-ended, in-depth interviews were also well suited to establishing collaborative and non-exploitative relationships with participants (Creswell, 1998). This type of interview also provided a means of getting at an experience that may be more likely to be hidden and to do so particularly in a way where the voices of those who are marginalized in society were accessed (Hesse-Biber, 2007). The process of reflexivity and representation of the participant are also central to feminist researchers (Hesse-Biber, 2007).

**Phenomenology.** The methodology that will be used to answer the research question in this study will be interpretive phenomenology in order to come to an understanding of the meaning of an individual’s lived experience of the phenomenon without bracketing of biases (Reiners, 2012). In phenomenology, the researcher attempts not to gather accurate information, but to gain awareness about the phenomenon of interest (Haverkamp & Young, 2007). Meaning of the lived experience of a phenomenon is created by each person and there is a common, shared understanding of the essence of this phenomenon (Moustakas, 1994). By using rich descriptions of the lived experience and through examination of the lived experience of the same phenomenon by multiple people, an understanding of the event will be created (Heidegger, 1996). This contributes to our understanding of what meaning and importance a phenomenon has for each individual, versus making preemptive assumptions about this.

The purpose of this study was to understand how women with concurrent mental health and substance use problems experience bonding with their infant, as well as the meaning of this experience for them. The phenomenon of interest was maternal-infant bonding, which is an experience common to all women who become mothers, but for this research it was explored in a subset of the greater population. Phenomenology assumes that human experience makes sense to those who live it and can be consciously expressed (Dukes, 1984). Thus, information about
maternal-infant bonding was gathered through in-depth interviews with individuals who had experienced the same phenomenon of interest, which provided them with the chance to share their understanding of their own experiences. This style of interview targeted the subjective understanding the participants bring to their experience of bonding with their infant and provided a means to explore the phenomenon of maternal-infant bonding based on the information provided by the participants (Hesse-Biber, 2007).

In traditional/ descriptive phenomenology, it is necessary to set aside any preconceptions and personal biases or hypotheses in a process called *bracketing* to best understand the phenomenon (Creswell, 1988). In interpretative phenomenology, the belief is that bracketing is not attainable as our experiences impact the way we conceptualize information. Thus, the goal is not to understand the phenomenon of interest in isolation from ourselves, but in the context of the lived experience of the participants in a study, while being aware of how our own experiences impact our interpretations.

The philosophical assumption of an interpretive framework for qualitative research fits well with a phenomenological study, as reality is seen as subjective and multiple, and as constructed by individuals (Creswell, 1998). Multiple realities exist in a research study, including that of the researcher, the study participants, and the reader of the study. One way of making sure that the reality of the participants in the study is described thoroughly is to report multiple statements representing the diverse perspectives on the phenomenon of interest (Moustakas, 1994).

The phenomenological approach in this study was influenced by Heidegger (1962). Heidegger believed that we are always a part of the world and thus we interpret our activities and meaning that things have for us by acknowledging the contextual relations to things in the world.
The study of beings and ‘what is’ is referred to as fundamental ontology by Heidegger; we examine our own place and existence in the activity of Dasein (being). He saw phenomenology as *letting things show themselves*, which also has a practical element in *Verhalten* (being and acting a specific way). Heidegger also believed in the *ground* of being, indicating that we should look at modes of being more fundamental than things around us.

**Participants.** In total, ten women who have experienced the phenomenon of interest were recruited for detailed interviews. All women signed consent, but one woman decided to withdraw from the study before commencement of the first interview. Thus, interviews were conducted with nine participants. This was a sample of convenience, given the constraints of the setting.

Inclusion criteria consisted of the following: Female, age 19 and older, delivered a child in the last six months\(^1\), current or past problems with mental illness, current or past problems with substance use, willing to share experience of infant bonding, able to attend two interviews in person, and able to speak and understand English. For this research, the participant’s subjective experience of mental health and substance use problems was sufficient to meet this part of the inclusion criteria. By nature of where the recruitment took place, all participants had a previous history of or were currently experiencing problems with substance use.

Participants had to self-identify as having had problems with substance use and mental health, as both are necessary for inclusion in the study. Mental health referred to mood/emotional difficulties interfering with the patient’s life. For this study, it was not important to

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\(^1\) Original study criteria stated that mothers would be recruited up to two weeks postpartum. Once recruitment started, I realized that many mothers stayed much longer at Fir (the place of recruitment) and that limiting recruitment to two weeks postpartum was eliminating mothers who could speak to the phenomenon of maternal-infant bonding. Thus, the criterion was changed to six months postpartum, which was discussed with my Research Supervisor and approved by the ethics committee.
have a diagnosis of a mental illness, but rather a subjective experience of emotional difficulties, such as depression or anxiety, as identified by the participant.

Exclusion criteria included women who reported that they have never experienced substance use problems or mental illness, were not able to attend two research interviews (though data was not excluded from participants who could not attend a second interview), were currently pregnant with their first child or their only child was older than 12 months, were unable to communicate in English, or who were not willing to share their experience of maternal-infant bonding for this study.

**Participant recruitment.** Participants were recruited from Fir (Families in Recovery) Square Combined Care Unit at B.C. Women’s Hospital, Canada’s first hospital-based program that provides healthcare to women with substance use problems and their infants in one hospital unit. Fir has five beds for pregnant women and six beds for postpartum women. The Fir program sees between 100-150 women per year at minimum (B.C. Women’s Hospital and Health Centre Foundation, 2007). The mandate of the program is to support women and their babies in the stabilization and withdrawal from substances, while keeping them together as much as possible; both mother and baby are cared for in the same room. Women tend to use Fir on a periodic base during pregnancy for stabilization or withdrawal from substances and then come to Fir to deliver their baby. Women stay for a minimum of ten days after giving birth, but often stay longer (up to several months) to receive additional support if needed. Fir’s multidisciplinary team of healthcare professionals includes a physician, a senior practice leader, nurses, a social worker, an addictions-counsellor, a nutritionist, and a life skills/parenting counsellor. Women receive support through individual and group counselling, where they learn parenting techniques.

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2 The description of the Fir Square Combined Care Unit at B.C. Women’s Hospital was adapted from the program’s website: [http://www.bcwomens.ca/services/pregnancybirthnewborns/hospitalcare/substanceusepregnancy.htm](http://www.bcwomens.ca/services/pregnancybirthnewborns/hospitalcare/substanceusepregnancy.htm)
and coping mechanisms, with a focus on minimizing the effects of substance use, malnutrition, and neglect for both themselves and their infants. Women are provided with specific supports to learn parenting skills, gain confidence with parenting, and take care of their baby so that they can work towards staying together after they leave Fir. They are encouraged to cuddle their babies, bond with them, provide stimulation, and physical contact.

Women are highly involved in their own care by participating and guiding aspects of their stay as well as discharge planning. The majority of the women have involvement from the Ministry of Children and Family Development, though custody decisions in regards to their infant vary depending on each woman’s circumstances.

Recruitment posters (see Appendix A) were put up on bulletin boards and in common spaces at Fir such as areas used for group meetings and leisure. Entry to Fir requires special permission, so it was important to inform staff of this study and introduce myself to them. I attended two staff meetings to present on this study for 10-15 minutes. No patients were present at these meetings. I left contact information with the staff in case they had any questions or concerns. I also explained that I would be the only person conducting recruitment. Women were able to contact me through their own phone on the unit if they were interested in finding out more about this research. Once contact was initiated, a phone screening was completed with each person to determine eligibility criteria and to answer any questions they may have (see Appendix C). Once interviews were scheduled on Fir, recruitment became easier, as women would see me meeting with other women and hear about this study from them. They would often speak to me in person, at which point eligibility criteria was determined by using the same screening questions. The women who were eligible were invited to participate in the study and a date and time was determined for the first interview. Those women who were not eligible for the
study were thanked for their interest and informed that they did not meet the participation criteria for the study.

**Data collection procedures.** Data collection commenced once the study was reviewed and approved by the UBC Children’s and Women’s Research Ethics Board. Once potential participants contacted the researcher and were identified as eligible to participate in this study, the consent form was discussed briefly and they were encouraged to pick up a print copy of the consent form from a central location on Fir, to look over before the first meeting. A meeting time was set up to meet in person to go over the consent form (see Appendix B) and discuss the study in detail. Participants were provided with at least 24 hours to sign consent and only once it was signed were they enrolled in the study. If the participant was not ready to sign consent, another day and time were scheduled for the first interview, or they had the option of calling me using the number listed on the recruitment poster when they felt ready to sign the consent form.

Eight participants took part in two in-depth interviews, while one participant took part in the first interview and was discharged from the Fir program shortly after, thus it was not possible to meet for a second time. The occurrence of the second interview was dependent on the participant still being at Fir, as discharge times varied greatly among the women. The focus of the first interview was to meet with the participants in person and engage in an open-ended discussion about the phenomenon of interest, utilizing the interview guide for possible areas of exploration. The second interview was implemented as an acknowledgment of the time it takes to build sufficient rapport as part of interviews, especially when working with a vulnerable population. To this end, it provided participants with the opportunity to elaborate or expand on any information they shared in the first interview. They were also provided with an overview of
preliminary themes that were gathered from their first interview and asked to share their thoughts on whether they resonated with their experience of bonding with their baby.

The length of time between both interviews varied, but ranged between one to two weeks. All interviews were audio-recorded and lasted between 29 and 87 minutes in length for the first interview (mean of 44 minutes) and between 26 and 72 minutes for the second interview (mean of 45 minutes). Interviews only took place at Fir, either in a meeting room that was not being used by anyone else at the time of the interview, or in the participant’s own room on the unit, depending on which location she preferred.

The in-depth interviews were unstructured in nature with the goal to understand the lived experience of maternal-infant bonding among the participants. I did not have an interview protocol, but a guide (see Appendix D) which outlined the orientating research question and several topics that could be explored depending on what the participant found the most salient to discuss in relation to her experience of maternal-infant bonding. This way, I was aware of the overall topic in mind, but was able to take the lead from the participants in “going where they want to go” (Hesse-Biber, 2007, p. 115).

Participants were provided with an orienting statement about the research, which was read out to them and shared in print. All questions were open-ended in nature to engage the participant in a dynamic dialogue, to portray a sense of curiosity, and to gather as much rich detail as possible. Since the interviews were unstructured, it was important to elicit as much information as possible to ensure an in-depth understanding of what was being discussed. This was done by encouraging the participant to continue with what they were talking about, to elaborate, and to provide examples, without guiding the direction of the conversation. Prompts were only used if needed and to support further reflection. Examples of probes that were used to
provide support were the silent probe (remaining silent but gesturing a nod, using eye contact, etc.), an echo probe (repeating what the participant just said and asking them to continue), the uh-huh probe (encourage the participant to continue to tell their story by providing an affirmation, such as uh-huh, yes, etc.), and probing by leading the respondent (being more explicit in probing by leading the participant toward a specific question or issue; Hesse-Biber, 2007). Conducting two interviews with each participant was helpful as it allowed for discussion of the phenomenon of interest until no new information or themes emerged and the point of saturation had been reached. Additionally, it provided participants with a chance to share any new thoughts or reflections since their first interview and for me to share preliminary data analysis results with the participant. All participants received a $20.00 gift card to either Safeway or Starbucks, depending on their preference, for completing the two interviews (one participant received a $10.00 gift card in total as she only completed one interview). Participants were encouraged to access available counselling support from Fir in the event that they felt distressed or upset by participating in this study. They were also provided with a list of possible resources (Appendix E) for counselling services within the community that they could access after their stay at Fir.

**Data management and analysis.** Each participant was assigned a unique non-identifying code to ensure anonymity. All interview materials were stored in my secure, locked office at B.C. Women’s Hospital. Electronic and audio files were password protected on a password protected computer and the consent forms and any other print material were stored in a locked cabinet. After completion of the study, all study-related files will be stored in a secure office with Dr. Beth Haverkamp at UBC. The only people who had access to these files were my research supervisor, Dr. Beth Haverkamp, and me. After each interview was completed, I transcribed the voice-recorded interviews verbatim.
Data analysis. Phenomenology has detailed procedures for data analysis, which tend to be more specific than for some of the other qualitative methodologies. Data analysis for this research followed the steps laid out by interpretive phenomenological analysis (IPA), which was originally developed by Jonathan Smith (Smith, Harré, & Van Langenhofe, 1995). It lends itself to the exploration of unique social experiences as well as social cognition, leading to a focus on understanding the meaning of a phenomenon. Its theoretical underpinnings stem from phenomenology (Husserl’s attempt to construct a philosophical science of consciousness), hermeneutics (theory of interpretation), and symbolic interactionism (the meaning individuals assign to an event is important but can only be understood through an interpretative process) (Biggerstaff & Thompson, 2008). The researcher is engaged in an interpretative relationship with the transcript, through which it becomes possible to access an individual’s inner cognitive world (Smith & Osborn, 2003). Thus, IPA can be said to have a focus on sense making by both the researcher and the participant. Through a sustained engagement with the text and a process of interpretation, while also acknowledging the meaning of the participants, one gains a better understanding of the meaning of their experience. Furthermore, even though the primary focus in IPA is the lived experience of the participant and the meaning ascribed to this by the participant, the findings are described and interpreted in terms of how the researcher thinks the participant is thinking (Smith, Flowers, & Larkin, 2009). Thus, claims are tentative and the analysis process is subjective.

In IPA, there is no single method for working with the data, which allows “a healthy flexibility in matters of analytic development” (Smith et al., 2009, p.79). The following are steps that were followed for the analysis of data for this study, as outlined by Smith et al. (2009):
a) Reading and re-reading. This step involved reading and re-reading the first transcript several times, while also listening to the audio recording of the transcript to imagine the voice of the participant, which helped with a more complete analysis. In order to let the participant become the focus of the analysis, I recorded my observations about the transcript and thoughts about the interview in my research journal as a way to bracket them initially.

b) Initial noting. This step examines the written transcript in terms of its semantic content and language use. While reading the transcript, I made notes about anything of interest, such as similarities and differences, echoes, amplifications, and contradictions in what was being said. I examined each line to better understand what each word, phrase, and sentence meant to me and what it could likely have meant for the participant. I recorded these notes in a margin to the right side of the written transcript and categorized them into descriptive, linguistic, and conceptual comments. Descriptive comments described the content of what the participant said, with a clear phenomenological focus and while staying close to the participant’s explicit meaning. This typically involves describing things which matter to the participant and the meaning of these things. Linguistic comments explored the specific use of language by the participant which helped to come to an understanding of how and why the participant had specific things that matter to them. Thinking about the context of their concerns (their lived world) also helped with this process. Some examples of linguistic comments were pauses, laughter, repetition, and others. Lastly, conceptual comments focused on engaging with the written text on a more conceptual and interpretive level, such as identifying more abstract concepts that helped make sense of the pattern of meaning that was developing. It also involved a shift in my focus towards the participant’s overall understanding of what they were discussing. Writing down my own personal reflections was also helpful with this step.
c) *Developing emergent themes.* This step involved trying to reduce the volume of detail contained in the transcript and initial notes while maintaining complexity in terms of being able to notice connections, patterns, and interrelationships between the exploratory notes. It also involved allowing my own interpretations to come forward more, as the data collection and exploratory comments were very participant-oriented. This interpretation was still closely connected to the lived experience of the participant. A column was added to the left side of the original transcript where I recorded themes based on the notes from the other stages. Themes were meant to capture the participant’s original words and thoughts, but also my interpretation, which reflected an understanding.

d) *Searching for connections across emergent themes.* This step involved examining how the themes fit together in terms of their connections and producing a structure that allowed different aspects of the participant’s experience to come through. I typed up all the themes in chronological order into a list, printed out this list of themes, and cut each theme into a separate piece of paper. I then moved themes that seemed related close to each other and searched for similar understandings as well as themes that were in opposition to each other. Some groups of themes were moved together, a new name was developed for the cluster, which was the superordinate theme. I looked for patterns and connections according to several options. This included, but was not limited to the process of abstraction (similar themes are moved together and a new name is developed for the cluster), subsumption (similar themes are moved together but an emergent theme becomes the super-ordinate theme), and polarization (themes are move together based on their oppositional relationship).

As part of this step, I also made several files to further help with analysis. I created a list that took note of the frequency with which a theme was supported and also compiled transcript
extracts to make files of emergent themes. Lastly, I created a graphic representation of each emergent and super-ordinate theme and also made notes in my research diary about how this stage of analysis was conducted.

e) Moving to the next case. This step involved repeating steps one to four with the next transcript. It was important to approach each transcript separately and to bracket ideas that emerged from the analysis of the previous case from impacting the analysis of the next transcript. Since it is likely that previous analysis will influence future analysis of the next case at least to some degree, it was important to allow new themes to emerge with each case.

f) Looking for patterns across cases. This step involved looking for patterns across cases by laying each table of emergent and super-ordinate themes for all cases out on a large surface. I asked myself which connections seemed to appear across cases, which themes seemed most potent, and how one theme in one case helped explain a different case. This process led to some reconfiguration and relabeling of themes. Results of this process were presented in the form of a table of themes, which included super-ordinate themes and their sub-themes, as well as quotes from each participant to illustrate each theme. Reflections of this process and steps undertaken as part of this stage were again recorded in my research journal.

Data dissemination. Findings from this study are written up as a thesis document and submitted to the Faculty of Graduate and Post Doctoral Studies at the University of British Columbia. There are plans to share findings both with healthcare professionals, academia, and participants of this study. In terms of healthcare professionals, the plan is to present a summary of findings and lessons learned to the site of recruitment for this study, as well a related programs and organizations in Vancouver who work with this population of mothers or mothers-to-be. I also plan to present findings at a local, national, or international psychological conference and
prepare a manuscript for submission to a peer-reviewed academic journal that would reach academics and clinicians who have an interest in this phenomenon and population. Furthermore, I asked participants whether they would like to receive a short summary of the study findings, either by e-mail or mail. Those who expressed interest in receiving this summary will be mailed a copy once the summary is available.

**Researcher’s Subjective Stance**

In qualitative research, the researcher becomes the instrument of data collection (Denzin & Lincoln, 2003). Researchers are urged to make explicit where they are located in relation to their research respondents as well as acknowledge the critical role they play in creating, interpreting and theorizing research data (Harding, 1992; Mauthner, Parry, & Backett-Milburn, 1998). It is important to state any biases, assumptions, expectations, and past experiences that qualify one to conduct the proposed research project (Greenbank, 2003).

My goal in describing my subjective stance is to be aware of my assumptions as part of a reflective process without trying to take away from the role I have in interpreting and co-constructing the data in this research study. This attempt to refrain from objectifying and bracketing my stance and possible differences between the participants and I also fits closely with feminist research, which encourages a dialogue that acknowledges similarities and differences and the potential impact of the differences on the interview (Hesse-Biber, 2007).

I am not a mother myself so I am not personally familiar with and have not experienced the phenomenon of interest, which is maternal-infant bonding. However, I am at an age where my friends are starting to have children. I have witnessed their interactions with their children with curiosity and have found myself drawn to listening to their stories of their experience as new mothers (especially those as first time mothers). I was also very close to my own mother…
when I was growing up, which made me reflect and wonder about the interactions that occurred early on in infancy that may have facilitated and supported this relationship. I also tend to believe that my mother was a highly involved, caring, and empathic individual who openly shared her love for my sister and me through her actions and words. Thus, gaining insight into the process of bonding from a mother’s perspective is something I am drawn to.

I identify as a healthy woman without any problems in regards to mental health or substance use, but seeing people close to me struggle with mental illness has shown me the vast impact this can have on every aspect of a person’s life. In terms of my professional experience, I worked as a Research Coordinator in the area of reproductive mental health in a clinic for women with mental health problems during their pregnancy and postpartum period. I have also facilitated self-recovery groups for individuals with substance use problems, but these groups were not specific to new mothers. Through my personal and professional connection to the fields of mental health and addictions, I have gained knowledge about many of the challenges a person with substance use and/or mental health problems may be facing, but also the strength and perseverance many of them possess.

Lastly, I identify as German and Persian in terms of my ethnic background. I am also an immigrant to Canada and moved here from Germany when I was a teenager. In terms of my upbringing, I grew up in a middle class household and was thus relatively privileged in several ways, but am proud of having worked since I was in high school and giving back to others through volunteering. I felt that it was important to be aware of the assumptions someone may make about me that could add distance between us. This was important as I as conducting in-depth interviews with women who may have made assumptions about me based on not being a mother, my appearance, ethnic background, enrollment in a graduate program, and affiliation
with the University of British Columbia. Since I identify as a female, from a mixed cultural background, with a strong emphasis on family connection, and a middle class socioeconomic background, I needed to be aware of my own position of power and assumptions about others’ cultures and experiences.

I also needed to be conscientious to differentiate between my role as a counsellor in training versus a researcher and graduate student in this research. My role was not to support or provide counselling to participants, but my ability to be empathic, compassionate, and a good listener was particularly helpful in conducting this research.

I held several assumptions which were relevant for this research, including: (a) bonding with one’s infant is a unique experience for each woman; (b) our culture and socioeconomic status affects the way we see the world and how we interact with others, including the bonding process; (c) individuals with mental health and/or substance use problems are not any different than anyone else, but may face unique challenges in their lives; (d) bonding may be impacted both by substance use and mental health problems; (e) women who are having problems with or had problems with both substance use and mental health are often stigmatized and silenced; and (f) I may be perceived to be in a position of power and authority regardless of my background or intent in conducting the interviews.

**Managing and acknowledging the researcher’s stance.** Subjectivity is by nature a part of qualitative research, and objectivity is not easily obtainable, nor is this the goal in a constructivist-interpretive approach. Morrow (2005) states that “interpretivists/constructivists and ideological/critical theorists are more likely to embrace the positioning of the researcher as co-constructor of meaning, as integral to the interpretation of the data, and as unapologetically political in purpose” (p. 254). Although the element of co-construction was important in this
research, I also engaged in a reflexive process as part of the interpretive act, which supported me in continuously reflecting on my role as a researcher and the research process. I kept a reflexive journal to note down thoughts that seemed surprising, trends I was noticing, and feelings and thoughts that came up during and after the interviews. This allowed me to continue to examine my own assumptions and expectations of this research. This notion of reflexivity is central to qualitative and feminist research (Mauthner, 1999). Part of this reflexive process also included being aware of the nature of my relationship to the research participants, including what role my power and authority played in the interviews (Hesse-Biber, 2007). Allowing me to position myself in this research by sharing and acknowledging information about my personal, professional, and cultural history and how they may inform my interpretations in this study was an important part of reflexivity. I also reflected on how the language I was using may have impacted the conversations during the in-depth interviews, how I heard stories, as well as the direction of the data analysis process. Self-reflexive journals tend to be used to bracket information and one’s own assumptions, but I used the journal to increase self-awareness, but not restrict the influence of my own assumptions and beliefs in the process of co-creating and interpreting meaning.

**Trustworthiness in Qualitative Research**

Validity and reliability are concepts well known in quantitative research, but not fully transferable to qualitative research. Some qualitative researchers even reject the notion of validity and argue that there is no reality external to what we know it to be. Other standards have been put forth, including those offered by Guba (1981) and Lincoln (1995). They proposed four criteria for judging the soundness or trustworthiness of qualitative research, including credibility (instead of internal validity), transferability (instead of external validity), dependability (instead
of reliability), and confirmability (instead of objectivity). I will provide a short overview of each and comment on how I addressed each criterion in this study.

**Credibility.** Results of a qualitative research study should be credible and believable from the perspective of the participant(s). Lincoln and Guba (1985) believe that credibility is one of the most important factors in establishing trustworthiness of findings. The following are strategies put forth by Shenton (2004). I used *tactics to help ensure honesty in participants*, by providing them with opportunities to refuse to participate in the study so that only those who wished to genuinely contribute would enroll in the study, explaining that their treatment would not be impacted by their participation, and reiterating that information would not be shared with anyone else, unless noted under the exceptions of confidentiality (e.g. child abuse/ neglect, elder abuse, harm to self, harm to others, subpoena issued by court). I engaged in *debriefing sessions* with my research supervisor, which helped widen the scope in terms of bringing in other’s experiences and perceptions. I also shared my developing ideas and interpretations, in order to discuss any potential biases and preferences on my part. I engaged in a *reflexive process* (as outlined above), which allowed me to monitor my own developing constructions. I employed *member checks* in the sense that I shared preliminary themes and quotes from the first interview’s transcripts with participants in the second interview to see whether what was analyzed on a preliminary basis resonated with their experiences. I did not ask participants to check the accuracy of the emerging themes and interpretations, but rather shared my preliminary thoughts and encouraged them to share theirs as part of the co-constructivist approach. As part of the results and discussion chapters, I also provided *thick descriptions* of the phenomenon to convey the situations and contexts that have been explored, and *examined previous research findings* to assess the congruency between findings from this study.
Transferability. Transferability refers to the degree to which the results of the study can be transferred to other contexts or settings. This responsibility mostly lies with the individual wanting to make this transfer; however, the researcher can assist this process by adequately describing the research context and the assumptions relevant to the research. Opinions vary about whether findings from a qualitative study, which most likely used a small sample, can ever be transferred or generalized. Erlandson, Harris, Skipper, & Allen (1993) notes that such a transfer is not possible as observations are defined based on the contexts in which they occur, but Stake (1994) and Denscombe (1998) feel that the cases are unique but still examples of a broader group. There is also considerable question about the benefit of trying to find similar results across similar settings, as they may represent multiple realities, and the understanding of a phenomenon tends to emerge only after several studies have been conducted (Borgman, 1986).

In order to address transferability in my research, I explained the context in which the research was carried out and provided thick descriptions of the phenomenon so that readers have a proper understanding of it. Some disagreement seems to exist as to how much detail to provide in the contextual explanation (Shenton, 2004). Several authors recommend providing information about the site of recruitment, any restrictions on the type of people contributing to the data, the number of participants, the data collection methods, the number and length of the data collection sessions, and the time period over which the data was collected (Cole & Gardner, 1979; Marchionini & Teague, 1987). Each of these is addressed in the methodology section and the research context is addressed in the results and discussion sections.

Dependability. Dependability emphasizes the need for the researcher to account for the changing context within which research occurs, specifically the changing nature of the phenomenon, and how these impacted the way the research was approached. Some have even
cautioned that the descriptions and observations of the phenomenon in a study don’t become static and frozen (Florio-Ruane, 1991). It is important to report the study processes in detail, so that another researcher has enough information to attempt to replicate the study if possible (Shenton, 2004). In order to address this need, I included details about the research plan and its implementation, how data was gathered (operational detail of data gathering), and attempt to evaluate the effectiveness of the process of inquiry that was undertaken (reflective appraisal of the project).

Confirmability. Confirmability is concerned with the degree to which the results in a study could be confirmed by others, while attempting to address the objectivity of the research. One way of addressing confirmability is to conduct a data audit, and clearly document the procedures for data collection, data checking, and analysis and evaluate the study in terms of its potential bias. This also includes actively searching for negative instances that contradict prior research. Providing information that shows that the findings are directly related to the experiences of the participants, rather than the characteristics or preferences of the researcher, is suggested. I provided details about my own assumptions and recorded my reasons behind particular decisions (e.g. dropping certain themes) in a research journal that was kept during this study. My process of reflexivity helped with this task. The audit trail consists of elements such as the research journal and documentation of data analysis procedures, to help trace the course of the research step-by-step, including the decisions made, and clear descriptions of the procedures. Additionally, the results have been evaluated by a healthcare professional who works with perinatal women with mental health and substance use problems. With her knowledge and background in perinatal mental health, she was in a position to attend to whether the findings
reflect what she understands of, or what can be reasonably imagined to be true of, the experience of maternal-infant bonding.

**Ethical and Diversity Considerations**

This research study had several anticipated ethical and diversity issues that needed to be carefully addressed and mitigated. I have provided an overview of ethical and diversity issues that I considered in preparation for this study, along with explanations for how they were approached to best mitigate their impact. Ethical and diversity considerations included the following:

a) *Vulnerable population.* The study participants were women who were in their postpartum period and experienced problems with mental health and substance use. This type of population is an often stigmatized group of women who have had many experiences being silenced by both healthcare professionals and society as a whole due to their substance use and mental health problems. This made them a vulnerable population which required skillful consideration in terms of their needs and rights as research participants, in addition to the ethical consideration of any other study. A feminist approach and specifically feminist interviewing allowed for the establishment of collaborative and non-exploitative relationships, which was appropriate with this marginalized population. In order to provide the participants with a voice of their own and not further other or stigmatize them, two interviews were conducted which provided an opportunity for clarifying information and sharing preliminary results from the analysis. This allowed for participants to provide feedback if the preliminary themes that were shared with them did not seem to fit with their experience and for me to discuss my own interpretations in regards to their experience of maternal-infant bonding.

b) *Participant confidentiality.* Participant confidentiality was assured by assigning a
unique non-identifying code to each participant, storing audio and electronic files as password protected files on password protected computers in a locked room and print files in a locked cabinet, and conducting the interviews in privacy. Interviews were conducted both in a meeting room that was blocked for the interview as well as in the participant’s assigned room at the hospital. They were provided with both options and asked to pick the location they preferred.

All information that was shared in interviews was kept confidential, except for specific limitations to confidentiality that have been outlined in this protocol and on the consent form for participants (e.g. suspected or reported child abuse or neglect, suspected or reported elder abuse, harm to self, harm to others, court subpoena for records). Careful consideration was given to how participants were presented in this document, so that enough information was shared to contextualize their experience, but not enough to provide any identifying information.

Furthermore, it is important to note, as previously mentioned, that the Fir program sees at least 100-150 women annually, thus the participants in this study only represent a small percentage of all women who receive support at Fir.

   c) Concerns about child abuse/neglect. Concerns about issues of childcare competency in regards to their new baby or any of their other children did not come up in the interviews with participants. I was aware that if this was a concern that I would need to follow protocol around concerns for the participant or her child according to the ethical and legal obligations I abide to as a graduate student in the Counselling Psychology Program at the University of British Columbia and as an adult who has a legal obligation to report known or suspected child maltreatment. This was thoroughly explained as part of the consent process.

   d) Need to please interview. Due to the type of questions that were asked in the interviews about maternal-infant bonding, one of the concerns was whether participants would
feel the need to “please the interviewer” (Biklen & Moseley, 1988, p. 159). I tried to mitigate this by taking as much time as needed to thoroughly go over the consent process to clarify my role as the interviewer and the goals of the study, including confidentiality and who would have access to their data. It was important that participants were aware that their answers would not be shared with staff at the hospital, nor that their treatment or care would be impacted in any shape or form as a result of participating or declining to participate in this study. Participants also took part in two interviews so that there was enough time to build sufficient rapport during the interviews, so that participants felt that they could respond as freely as they wanted and without fear of judgment. However, there may be the possibility that some topics did not get raised or certain experiences were not shared as a result of wanting to please or out of fear of judgment, which is further discussed in the results and discussion sections.

e) Trauma. The purpose of this study was not to elicit information specifically about trauma, though for some participants this came up as a topic in the interview. For most of these participants, their experiences of trauma were related to having lost custody of one or more of their children or having been in unsafe situations in the past. Participants were not asked to recount traumatic experiences, and were able to choose what information they felt comfortable sharing, as their participation in the research project was completely voluntary. As part of the consent process, the limitations of the research interview were explained and participants were reminded of the access to counseling services within the hospital and additionally given a resource sheet of counselling resources (Appendix E) within the community.

f) Consent process. I engaged in a continuous process of consent taking with participants, to make sure that my role as a researcher was properly explained, that they were aware of the limitations to confidentiality (e.g. child abuse), and that they had full control over whether they
wanted to answer a particular question or move on to the next question. Research shows that continuous engagement in the consent process throughout the interview is important as qualitative interviews may elicit information that neither the researcher nor the participant intended to talk about (Thompson, 2002). Additionally, those participants who are receiving treatment at an in- or outpatient facility may feel additional pressure to participate in the research study (Thompson, 2002), thus it was important for me to explain that consent did not impact treatment decisions or access to treatment for the participants in this study.

Furthermore, a continuous consent process occurred at the beginning of the study and during interviews. Since this was a highly vulnerable population, in addition to using clinical judgment, I asked explicit questions to ensure understanding and check-in with the participant during the consent process. The participant was reminded that they have no obligation to participate in this study and that their medical treatment at Fir would not be impacted by their participation. During the interview process, I used counselling skills to monitor emotional reactions of discomfort or as confusion emerged. At this point, I checked-in with the participant to explore whether she wanted to continue the interview or needed to take a break. One way for me to check in with the participants was to reflect that they were sharing something very personal and to reiterate that they were in control, at which point the participant was asked whether she was okay to keep sharing. In these situations, the participant was reminded that they were free to withdraw from the study at any point and that their treatment at Fir would not be impacted by their decision to participate in the study. Additionally to the above stated procedures, as the interviews were conducted at B.C. Women’s Hospital, the Principal Investigator at this hospital, was available for consultation if necessary.
g) Mental/intellectual capacity. Another potential concern that was considered, but proved not to be a problem, was a limited or compromised mental and intellectual ability of the participant to provide consent. Mental illness can impact the cognitive ability of the individual (e.g. in a depressive phase; Gotlib & Joormann, 2010) and substance use may impair judgment and ability to make decisions either when under the influence or due to long-term cognitive impairments (Chelune & Parker, 1981; Evert & Oscar-Berman, 1995; Grant & Reed, 1985). In order to mitigate this, the consent process and interviews only took place with those participants who appeared to not be under the influence and appeared to fully understand the consent process. I was aware that without having a way to properly assess this, I would rely on my professional judgment to determine if someone seemed to be unable to freely provide consent. Additionally, all interviews were conducted with participants in an inpatient hospital treatment setting, and one of the rules at this program was that women cannot be under the influence of substances during their stay.

h) Dissemination of findings. Dissemination of findings is important to aid in the process of knowledge translation. However, if the findings of the study will be distributed within the setting that the research was carried out in, this may cause some uneasiness and impact the obligations of the consent (Phtiaka, 1994). As there are plans to share an overview of research findings with the recruitment site for this study, I will review the information that will be shared to see which pieces may need to be taken out in order to further protect the privacy of the participants. Additionally, as with all final reports of this research, no identifying information will be provided.
An overview of the findings will be made available to participants who signed a separate consent form indicating that they would like to receive this summary either via e-mail or mail. Participants did not have to consent to this part in order to take part in the study.

Overall, there were several ethical and diversity issues that needed to be carefully considered in this research and many of these were addressed on the consent form as well. Any concerns that came up were discussed with my research supervisor and reflected on during the process of reflexivity that I engaged in.
Chapter 4: Research Findings

This section will provide a detailed overview of the research findings of this study. The research question guiding this study was: “How do mothers with substance use and mental health problems experience bonding with their infant?” This chapter begins with biographical synopses of the study participants to contextualize the lived experience of maternal-infant bonding as described by each participant. Additionally, descriptions of the sample are included as this has implications for the generalizations that can be made from the findings and for the overall trustworthiness of this study. Super-ordinate themes are presented after the synopses to illustrate the common themes among participants in terms of each woman’s lived experience of their maternal-infant relationship. The five super-ordinate themes are Sense of Transformation, Emotional Experience of Bonding, Sense of Connection, Sense of Nurturance, and Sense of Future. All super-ordinate themes also included sub-themes. Sense of Transformation included the sub-themes Making Changes and Sense of Maternal Identity. Emotional Experience of Bonding included the sub-themes Sense of Happiness, Sense of Pride, Sense of Love, Sense of Fear, Sense of Guilt and Shame, and Sense of Ambivalence. Sense of Connection included Sense of Unbreakable Connection and Natural Closeness, Importance of Spending Time Together, and Initiation of Bonding through Sensory Experience. Sense of Nurturance included the sub-themes Attending to Physical and Emotional Needs and Sense of Protection. Lastly, Sense of Future included the sub-themes Desires for Continuing Relationship and Sense of Cultural Traditions. Themes are supported by quotes from participants to illustrate the content of each theme and provide a voice to the participants and their lived experiences.
The Participants – A Descriptive Summary

This section introduces the participants and the context of their lived experiences to the reader. These summaries are not interpretative in nature and were not part of the analysis. Table 1 also provides a brief overview of the most important demographics for each participant, including substance use and mental health information.

Nicola

Nicola is a thirty year old Aboriginal woman. At the time of the interview she was 13 days postpartum to a female baby, of whom she has custody. She has two children; her eldest child (a teenager) lives with an extended family member who is the legal guardian. Nicola does not have much contact with her first child although she wishes they had a relationship. She grew up in the Downtown Eastside from age 12 and went to jail several times during her youth and adult life. Nicola has struggled with crack and heroin use prior to her pregnancy and heroin use during her pregnancy. She was on methadone treatment during her pregnancy. Her baby did not have any withdrawal symptoms upon delivery. She described herself as feeling depressed prior to, during, and post-pregnancy and feels alone in parenting her baby, as her partner has not been as present in their lives as she had hoped. She will be moving into supportive housing after her stay at the Fir program and has ambitions of going back to school so that she can find a job helping others in the Downtown Eastside. She credits her new baby with changing how she thinks about life. Nicola reported that she enjoys spending time with her new baby, though it was an unplanned pregnancy.

Desiree

Desiree is a twenty-three year old Caucasian woman. At the time of the interview she was 61 days postpartum to a female baby, of whom she was expected to receive custody within a month. She has two other children who are preschoolers and are currently under a family
member’s custody. She described having been too young when she had her other two children. She recently ended her relationship with her partner of several years and feels that this is a good decision for her as it allows her to focus on herself and her baby. She has been struggling with heroin use for six years but feels it is time to make changes for her and her children. She has also dealt with depression in the past. She will be living with her family after she leaves Fir and is hoping to be with all her children. She was unsure about having another baby while she was struggling with substance use, but with the support of her family she is motivated to make positive changes to her life.

Kaitlyn

Kaitlyn is a thirty-year old Caucasian woman. At the time of the interview she was 41 days postpartum to a male baby of whom she has custody. She has three children in total, including an early elementary school child and a preschooler. A close friend of hers has custody of her other children. She described not having felt ready to be a mother to her other children when she first had them. Kaitlyn has struggled with substance use since age 17, both with heroin and crack cocaine. She has not been using substances for one year. She has also struggled with depression and post-traumatic stress disorder. She’ll be going into supportive housing after Fir. She was concerned initially about having a boy as she has two girls, but now feels at ease and very much connected to her baby. She describes this as a happy time as she enjoys being a mother and is looking forward to making changes in her life and having the opportunity to be a mother again.

Ashley

Ashley is a twenty-eight year old woman of Caucasian and Aboriginal heritage. At the time of the interview she was six days postpartum to a male baby, of whom she hoped to have
custody when she left Fir. She has three children, but does not have custody of the two eldest ones (a pre-teen and an early elementary school child). They are adopted by a member of her extended family. Ashley has lived in and out of foster care since she was twelve years old and described growing up in a neglectful environment with alcoholism in her family. She herself struggled mostly with alcohol and cocaine, as well as depression and anxiety for all her life. She was hoping to live in supportive housing after Fir and is considering working in the addiction field in the future. She described having a third child as inspiring and enlightening and wanting her baby to have a good future, though she has also experienced difficulties as she remembers losing custody of her other children.

**Barbara**

Barbara is a twenty-nine year old Aboriginal woman. At the time of the interview she was 14 days postpartum to a female baby, of whom she has custody. She has six children, two live in a foster home, and three are in the Ministry’s care but living with her extended family. They are a pre-teen, an early elementary school child, a preschooler, and two infants/toddlers. Her substance use problems started two years ago and she struggled with crystal meth use, which she continued using during her pregnancy. She delivered a healthy baby, though her baby was premature. Barbara also identified as feeling depressed and anxious during the time she was using substances. She will be living in supportive housing after Fir. She enjoys being a mother and feels like she is ready to make changes in her life.

**Sarah**

Sarah is a thirty-one year old woman and identifies as Caucasian and Aboriginal. At the time of the interview she was eight days postpartum to a female baby, of whom she has custody. This is her second child. Her first child is a teenager and lives with her father who has custody.
of her. Sarah started using substances (smoking and drinking) at age 12 and later used other substances, including cocaine and heroin. She was on methadone treatment during her pregnancy. Her baby required treatment with morphine post-delivery, which Sarah feels guilty and ashamed about. She described having suffered from long-standing depression and anxiety, and particularly depression during her pregnancy. She feels she may also struggle with bipolar disorder and post-traumatic stress disorder. She will be living in supportive housing after Fir and hopes to return to school to upgrade her degree to help her find a job in the future. She is happy to be a mother again and feels she is able to make positive changes to her life. However, she is often reminded of the struggles she endured with her first baby, which she feels sad about.

Laura

Laura is a thirty year old Aboriginal woman. At the time of the interview she was seven days postpartum to a female baby, of whom she has full custody. She has three children, including an early elementary school child and another infant/toddler. She shares custody of her children with her husband. She described herself as coming from an alcoholic family and having struggled with alcohol use herself since age 12. She grew up on the reserve and was also in foster homes until the age of nine, at which point she returned to live with her mother. She described herself as also having struggled with heroin use and prescription painkillers (since age 19). During her pregnancy, she continued using these substances in addition to smoking cigarettes. Her baby was born healthy. Laura also identified as struggling with anxiety and post-traumatic stress disorder. She will be returning to live with her family after her stay on Fir. She didn’t want to have the baby originally but now feels happy to be a mother again and wants to make positive change for her child.
Emily

Emily is a twenty-six year old Caucasian and Aboriginal woman. At the time of the interview she was five days postpartum to a female baby, of whom she has custody. She has four children, including a pre-teen, an early elementary school child, and a preschooler. Two of them are in foster care and one was adopted by an extended family member. Emily has been homeless periodically since she was a teenager. She used to use crack, heroin, and amphetamines until she was about nineteen years old. After nineteen years old she switched to using marijuana, which she used during her pregnancy and continues to use currently. She gave birth to a healthy baby. She described herself as having been depressed and anxious in the past and currently struggles with anxiety related to crowds. She is looking for supportive housing options for when she leaves Fir. She has ambitions of going back to school and in the future find a job working with mothers in similar positions.

Isabel

Isabel is a twenty-one year old Caucasian woman. At the time of the interview she was 17 days postpartum to a female baby. She was undecided at that point whether she would keep her baby or give it up for adoption. This is her first child. She started using substances at age 12, including heroin, and was on methadone during her pregnancy. Her baby was born premature and was treated with morphine post-delivery. She described herself as being anxious since age 12. She is unsure where she will be living after she leaves Fir. Isabel did not plan to have a baby and tried to have an abortion but it was too late to do so. Isabel feels this is a good opportunity to make positive changes to her life, but struggles with feeling ambivalent about being a mother, since it was not something she had planned.
Table 1

**Participant Demographic Overview**

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Age</th>
<th>Days Postpartum</th>
<th>Sex of Baby</th>
<th>No. of Other Children</th>
<th>Racial/Ethnic Identity</th>
<th>Type of Substance Use (Duration)</th>
<th>Self-Identified Mental Health Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicola</td>
<td>30</td>
<td>13</td>
<td>F</td>
<td>1</td>
<td>Aboriginal</td>
<td>Crack &amp; heroin (18yrs), methadone*</td>
<td>Depression</td>
</tr>
<tr>
<td>Desiree</td>
<td>23</td>
<td>61</td>
<td>F</td>
<td>2</td>
<td>Caucasian</td>
<td>Heroin (6yrs)</td>
<td>Depression</td>
</tr>
<tr>
<td>Kaitlyn</td>
<td>30</td>
<td>41</td>
<td>M</td>
<td>2</td>
<td>Caucasian</td>
<td>Heroin &amp; crack cocaine (12yrs)</td>
<td>Depression, PTSD</td>
</tr>
<tr>
<td>Ashley</td>
<td>28</td>
<td>6</td>
<td>M</td>
<td>2</td>
<td>Caucasian Aboriginal</td>
<td>Alcohol (16yrs), cocaine (unknown**)</td>
<td>Depression, anxiety</td>
</tr>
<tr>
<td>Barbara</td>
<td>29</td>
<td>14</td>
<td>F</td>
<td>5</td>
<td>Aboriginal</td>
<td>Crystal meth (2yrs)</td>
<td>Depression, anxiety</td>
</tr>
<tr>
<td>Sarah</td>
<td>31</td>
<td>8</td>
<td>F</td>
<td>1</td>
<td>Caucasian Aboriginal</td>
<td>Alcohol (~7yrs), cocaine &amp; heroin (~10yrs), methadone</td>
<td>Depression, anxiety, Queries re. Bipolar Disorder and PTSD.</td>
</tr>
<tr>
<td>Laura</td>
<td>30</td>
<td>7</td>
<td>F</td>
<td>2</td>
<td>Aboriginal</td>
<td>Alcohol (18yrs), heroin (2yrs) &amp; prescription painkillers (11yrs)</td>
<td>Anxiety, PTSD</td>
</tr>
<tr>
<td>Emily</td>
<td>26</td>
<td>5</td>
<td>F</td>
<td>3</td>
<td>Caucasian Aboriginal</td>
<td>Crack, heroin, &amp; amphetamines (~4yrs), marijuana (~7yrs)</td>
<td>Depression, anxiety</td>
</tr>
<tr>
<td>Isabel</td>
<td>21</td>
<td>17</td>
<td>F</td>
<td>0</td>
<td>Caucasian</td>
<td>Heroin &amp; meth-amphetamines (9yrs), methadone</td>
<td>Anxiety</td>
</tr>
</tbody>
</table>

*Note:* Mothers who indicated using methadone were on methadone treatment for their opioid use. It is only included here for reference.

**Participant did not want to disclose length of usage.**

**Many of the mothers also smoked cigarettes, but since no data was collected on this, it is not included in here.**
Common Themes
The analysis generated five super-ordinate themes, which are Sense of Transformation, Emotional Experience of Bonding, Sense of Connection, Sense of Nurturance, and Sense of Future (see Table 2).

Table 2
Super-Ordinate Themes and Sub-Themes

<table>
<thead>
<tr>
<th>Super-Ordinate Theme</th>
<th>Sub-Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of Transformation</td>
<td>Making Changes</td>
</tr>
<tr>
<td></td>
<td>Sense of Maternal Identity</td>
</tr>
<tr>
<td>Emotional Experience of Bonding</td>
<td>Sense of Happiness</td>
</tr>
<tr>
<td></td>
<td>Sense of Pride</td>
</tr>
<tr>
<td></td>
<td>Sense of Love</td>
</tr>
<tr>
<td></td>
<td>Sense of Fear</td>
</tr>
<tr>
<td></td>
<td>Sense of Guilt and Shame</td>
</tr>
<tr>
<td></td>
<td>Sense of Ambivalence</td>
</tr>
<tr>
<td>Sense of Connection</td>
<td>Sense of Unbreakable Connection and Natural Closeness</td>
</tr>
<tr>
<td></td>
<td>Importance of Spending Time Together</td>
</tr>
<tr>
<td></td>
<td>Initiation of Bonding Through Sensory Experience</td>
</tr>
<tr>
<td>Sense of Nurturance</td>
<td>Attending to Physical and Emotional Needs</td>
</tr>
<tr>
<td></td>
<td>Sense of Protection</td>
</tr>
<tr>
<td>Sense of Future</td>
<td>Desires for Continuing Relationship</td>
</tr>
<tr>
<td></td>
<td>Sense of Cultural Traditions</td>
</tr>
</tbody>
</table>

Sense of Transformation
One of the ways in which women experienced bonding with their babies was through what they described as their journeys of transformation. This included making specific changes to their substance use behaviours and other parts of their life because of having their baby and to have another chance at motherhood. These changes in turn allowed them to be available to bond with their baby and have a renewed sense of focus on bonding with their baby. For some women, becoming a mother (again) was closely connected to taking on a new identity and this process of transformation into motherhood allowed them to feel more bonded with their baby.
Making changes. Many of the mothers started using substances as young teenagers and grew up in unstable homes. Their use of substances contributed to loss of custody of their other children for seven of the nine mothers (one mother was a first-time mother and the other mother did not lose custody of her other children). At the time of the interviews, six of the nine women had been given custody of their babies, two were expecting to receive custody shortly, and one was undecided about whether she would keep her baby. In this sense, for the mothers who previously lost custody of their other children, having a baby was another chance at motherhood and an opportunity to make changes to their lives. As Kaitlyn explained:

Well umm I don’t know I’ve had struggles in my life with addiction and- and uh stuff like that but I am here clean and umm I think my life is beginning on a new like transition in my life, I’m umm starting to make some big changes and just kinda like growing up finally and making good decisions and umm you know I have a new chance at being a mom and I love being a mom and I’m really enjoying it.

Even Isabel, a first-time mother who was ambivalent about having a baby, felt that she did not want her child to grow up in a life of drugs and saw her baby as “a pretty good reason to make the best of it.” She described her transformation as follows:

Umm, I don’t know I guess just umm- that she’s making it a lot easier for me to uhh get my life on track for her in a sense and uhh it’s just makes it easier since, since I don’t know since she is here for me to do it, I should done, I’ve done it for myself a long time ago, but not only that but do it for her too now.

Being a mother allowed the women to have a renewed sense of focus and motivation that enabled them to make desired changes. They spoke about wanting to focus on being a mother and not prioritize other elements of their lives, including substance use. For Ashley, her baby
was “her world” and what she wanted most was to be with him. Desiree described a similar experience:

I’d rather make her life worth it rather than focus on my own anymore. Because like you know I’ve wasted, like- like messed up so many years of my own, that I’d rather like not focus on myself anymore, you know.

Part of the transformation in their lives included a shift in their thinking about themselves and the lives they had lived before. This included both a shift from focusing on themselves to focusing on their child(ren), as well as a shift from making unhealthy life choices to wanting to be a better person through healthy actions for themselves and their babies. As Nicola explained: “She changed my life, like she changed my- how I thought about life and how I was living downtown. It doesn’t make me want to go back right to how I used to live my life.” This was echoed in Kaitlyn’s experience: “He has changed my life and made me want to be a better person…and you know just love myself and just do good things in this life.” Sarah also felt ready to make changes to her life and wanted her baby to know how much she meant to her:

Umm I’d want her to know that umm you know that I was willing to- to change everything about my lifestyle to-to have her in this world and that I fought- I fought umm you know umm in order to- to make sure that she was number one, but then I also don’t know if I’d want her to know that it was something I had to fight for either.

For Sarah, her journey of transformation and how she experienced her relationship with her baby was connected to being acutely aware of why she was making certain changes in her life. Though Sarah was committed to making changes, she wished that substance use was not something she had to struggle with in the first place.
In addition to the other facets of transformation that allowed mothers to be more available and ready for bonding with their baby, making sacrifices was part of this process for some as well. For Ashley, having a baby provided her with a “last chance to have a normal life.” She described her experience in the following way: “I had to exclude all my friends and everybody just so I can give him my whole attention.” She knew it would require making sacrifices in her life, and she was ready to do so in order to make positive changes for her baby. Similarly, Emily knew she was ready to make whatever sacrifice it might take for her to keep her baby. She explained: “Whatever it takes for me to keep, be able to have my child come home with me, I’ll do it, you know like I don’t mind.” She had made significant changes to her substance use behaviours already in the past and was determined to keep working on making more positive changes for her baby. For Sarah, her transformation was about having realized that what she focused on in the past when she had her first child was not worth the sacrifice of not being able to keep her baby. She felt at ease now knowing that she was focused and willing to make the necessary changes. She noted:

Whereas with [my baby] like I’ve already experienced umm that and I’m not as curious and I already know that all of those things that I was wanting to do and thought that I needed to do weren’t worth the sacrifice that, of you know raising umm a new- newborn child into this world, right.

For some mothers, there seemed to be awareness that choosing to come to Fir, a program specialized in helping mothers reduce their substance use while being supportive of keeping mothers and babies together whenever possible, was part of their journey towards making changes. There was an understanding that if they would have not come to Fir, their chances of having custody of their babies were greatly reduced. Therefore, their decision to go to Fir and
work on making changes allowed them to set goals for their own recovery from substance use, while having the opportunity spend time with, care for, and bond with their baby. For Nicola, she recalled being told that her baby would be taken away from her as she was living in unstable housing prior to coming to Fir. She felt that coming to Fir enabled her to keep her baby and spend time together in a safe environment, while working on making changes to her life so that she could provide a more stable and safe future for her baby. Isabel was motivated by similar reasons, as she had been told that her only chance of keeping her baby was to come to Fir:

It would be the only chance in me like umm having her and them not even like them actually keeping her like with me umm and they gave me the impression that if I went anywhere else that I wouldn’t even get to say bye, that they would just take her and, so I didn’t really know what to expect.

In comparison, Kaitlyn specifically chose to go to Fir not because she had been informed she needed to, but to have reassurance in knowing that she would be able to show others the changes she was working on. Additionally, she was eager for others to observe how well she was doing with her baby:

I came here you know because of my Ministry umm history and just like wanting that security of knowing that they can’t remove your child while you’re here. And being able to have the opportunity to prove to them while I am here in a safe environment with you know supervision that they can vouch how well I am doing and stuff like that, whereas at home they can have doubt, because they’re not able to see what’s going on all the time and stuff so having that security was good thing for me ‘cause you know yeah.

Overall, participants’ experiences of transformation, as part of their bonding relationship with their baby, consisted of choosing to go to Fir to get support in making changes to their lives
that would allow them to be more available for a relationship with their baby. This also allowed them to focus on bonding with their baby. These changes were motivated by having a renewed chance at motherhood with having another baby. Their commitment to making changes was inspired by each mother’s hope of being a part of their baby’s life, which they felt was dependent on making specific changes.

**Sense of maternal identity.** Making changes to their lives allowed mothers in this study to focus on being a mother to their baby, which for many of them was a comforting feeling and a role they enjoyed. Thus, becoming a mother, even if they already had other children, provided them with an identity and a role that they were familiar with, felt capable in, and that brought them closer to their baby. For some mothers this meant having always wanted to be a mother, for others it meant that they were a natural at being a mother, and for others it was about enjoying being a mother to their baby. A strong identification as their baby’s mother seemed to allow them to feel increasingly connected to their baby and thus more bonded.

Kaitlyn experienced a strong sense of maternal identity and felt that she was meant to be a mother and that it came natural to her. Being a mother was not only her source of happiness, but it seemed like she felt it was meant to be this way. She stated:

> Umm well with my first, it was- I was really you know a little nervous of course but again the same thing, umm I feel like being a mom is the best thing in the world, that’s what I was meant to be here for, and umm I just feel like I am a natural at it, it just comes naturally to me, the umm motherly instinct I guess you would call it, right. So yeah it’s just pretty, it comes naturally for me.

Barbara felt the same strong connection to being a mother to her baby. For her it also felt natural and was a “comfortable feeling,” but also allowed her to be reminded of what she was capable of.
As a mother of five other children, she described enjoying being a mother to her children. She recalled: “Just comes natural and it just remember, I remember that this is what I used to be and this is what I can be, yeah, it’s a good place for me.” Furthermore, she felt that she was “capable of connecting really fast” and that “the mom kicks in super fast” as well.

Similarly, Emily also enjoyed being a mother and identified with being a mother to her baby, which made her happy. It was important for her to have the chance to be directly involved in the parenting of her baby and connect with her by consciously taking on the role of her mother, as she previously felt disconnected from her other children when they were first born. She described her experience as follows:

I love being a mom. I do. Umm I’ve always wanted to be an actual mom you know and just having the chance of getting to be a mom, you know it’s, it’s how, it’s a happy thing, it’s emotional, it’s like an emotional rollercoaster type thing umm especially like when you’re up for hours upon hours at night and you barely get any sleep.

For Sarah, being a mother brought a sense of excitement. When talking about her relationship with her baby she explained that watching her daughter grow and being a part of this process was meaningful to her. She explained:

Like I just know that there’s so much more that’s going to surprise me and put me in a state of aww, that umm you know it’s like umm, it’s like Christmas every day kind of like you know I get these gifts that I get to, to unwrap and, and she just continues to give them to me and so it’s like a sense of excitement for each sing- you know every single day that comes. Yeah. So, I feel very blessed.

Overall, for some women identifying with being their baby’s mother seemed to allow them to feel closer to their baby, as it was a role that they felt natural at and good about. Thus,
their transformative process into motherhood included transforming themselves in a way where they redefined their goals and motivations in terms of being a mother.

**Summary of sense of transformation theme.** Overall, mothers in this study reported making significant changes to their lifestyle which provided them with a new chance at motherhood and a renewed focus. Their commitment to making these changes allowed them to be more available and accessible to bond with their baby. Furthermore, as part of their transformation, mothers also identified with the process of becoming a mother, which for some reminded them of their capability as a mother and the happiness motherhood gave them.

**Emotional Experience of Bonding**

When the women in this study were asked how they experienced bonding with their babies, many described emotional experiences that they associated with bonding. Being a mother to their babies elicited a variety of emotions, both positive and negative, that came up for them in regards to their relationship with their baby. Given the shared backgrounds of many of these mothers, such as struggles with substance use and mental health problems and previously having lost custody of their other children, it is not surprising that mixed emotions would be at the forefront of their experiences of mothering. This interplay of emotions was expressed by Desiree: “I’ll like, you know can go from being really upset to being really happy like in a second, you know? It’s just peaceful.”

The sub-themes that emerged from the common theme *Emotional Experience of Bonding* were *Sense of Happiness*, *Sense of Pride*, *Sense of Love*, and *Sense of Fear*. Furthermore, *Sense of Guilt and Shame* and *Sense of Ambivalence* will be discussed, though each was only explicitly endorsed by one participant.
**Sense of happiness.** Experiencing happiness was one common emotion for many of the mothers when reflecting on how they felt about their babies, but the way they expressed their happiness differed. For Nicola and Desiree their happiness was connected to being with and watching their babies. As Nicola noted: “She just makes me happy, I love seeing her smile, she smiles so much when she sleeps.” In comparison, Kaitlyn talked about how being a mother made her feel, especially as she felt that her baby meant “the world” to her and that she never really felt happy in her life until she was a mother. She explained:

Oh it feel, uhh I uhh it’s really hard to explain, it’s just like I feel complete, I feel umm just utter happiness and just love, so much love and umm it’s just the best feeling in the world. It’s my most happiest time ever, it’s my only true happiness I’ve ever had in my life, so it’s yeah, it’s a beautiful thing for me.

For Laura, her happiness was connected to a sense of wonder and disbelief, referring to her experience as “walking on air.” Her words described her experience this way:

Umm like you’re walking on air ‘cause it’s- ‘cause- they make you so happy. It’s just unbelievably tiny little baby that’s- just came into the world and you look- you just can’t stop looking at them ‘cause they’re so cute and everything that they do, like it’s amazing.

A different way of experiencing a sense of happiness in regards to bonding with her baby was true for Ashley. Ashley considered herself a spiritual person and her happiness was about feeling inspired by her baby and hopeful because of this. She felt hopeful about their future and about getting help for her problems with substance use.

**Sense of pride.** Several of the mothers also experienced a sense of pride as part of bonding with their babies. This was reflected in their pride of being their baby’s mother, having custody of their baby, and being proud of their baby. Ashley described it eloquently:
I feel honoured to be his mom and I’m proud of him, like I am so happy. So there are no words that can explain it, but it feels awesome and I wanted to be his mom and it’s a feeling that you can’t describe.

For her it was about accomplishing something in her life that she felt proud of and being her son’s mother was a source of pride for her. For Emily, she was proud of the work she had put into being her son’s mother and having custody of him. She felt gratitude and satisfaction at knowing that she had reached her goal of keeping her baby, especially after previously having been to Fir and not having been able to make certain changes in her life. Her own words describe her experience and sense of pride best:

I’m the mom. I’m responsible. You know like it’s a great feeling, you know knowing that you worked so hard, oh I kind of slack off a bit but you know like just knowing there’s the goal. You know, you have a sense of pride, I’m like “Yeah! Still in my care. I can do this, I can do that, I can do anything.”

Nicola had a similar experience to Emily in that she was in disbelief when she was told she had custody of her baby. She was expecting that she would have more conditions on obtaining custody compared to some of the other mothers in similar positions, but was proud to find out she had full custody of her baby. Laura and Isabel also felt pride when talking about their babies both now in the present as well as when thinking about the future. Isabel was proud of teaching her baby how to hold the bottle at only two weeks postpartum. This was an important moment for her as she felt ambivalent about having her baby and being able to watch her baby grow and respond to her input was enjoyable for her. She felt like she was making a difference and felt proud of her baby as a result. For Laura, it was about knowing she would be responsible for her daughter’s upbringing: “I can’t believe I’m going to be responsible for how she’s gonna turn out
when she grows, grows up.” Knowing that she would be her baby’s caregiver and that she
would influence what type of person her baby would be in the future were a source of pride for
her.

**Sense of love.** All of the mothers talked about experiencing bonding through their sense
of love for their baby. They talked about their love growing each day, their love as being
unconditional, their love as bonding, and their love as enduring. For Desiree, it was both about a
shift in how much she loved her baby over time and loving her baby unconditionally:

I don’t know I love her more and more every day right, I guess it would be harder and
harder to ever leave her, you know? I never think about leaving her, I just mean like I
don’t know it’s kind of hard to explain, right, like I love her unconditionally I guess.

Similarly for Kaitlyn, she also experienced a growing love and felt almost surprised at how much
more she loved her baby every day:

I feel more like I am falling more and more in love just in the sense that like little things
will happen and it’s just like “Oh my god I love him so much” and- and just so I mean it
grows more and more even though you can’t even imagine you could love something
more than you already do ‘cause it’s just so much, but yeah I mean you do, you fall more
and more in love with them every day.

Laura also felt surprised at how much she loved her baby. She was originally unsure about
having another child and wondered whether she could love another baby the same way she
already loved her other children. When her baby was born she knew she loved her, yet was
surprised at how much. She explained:

And then you’re really surprised how much you love them… It’s amazing. Yeah, like I
look at her “Omg, I love her so much” and start crying and- and I’m- I’m already a
mother of two and I- I love her too but like I thought that what am I gonna do with three
girls and I love these girls so much. Am I- am I gonna love her the same, and- and then
she’s born and you just, it’s just crazy… Just looking at her, just amazes me how much
love there is. Like I didn’t even want to have the baby and then umm just growing
attached to her in the pregnancy and then being born and then omg, it’s just unbelievably
in love.

For Sarah, her growth in love was more about the change in her feelings from when she
was pregnant to when she had her baby. For her, being able to see, touch, and smell her baby
contributed to the love she felt for her. She described this process as follows:

Umm just because through my pregnancy I was very unsure and I was scared and then as
soon as she came like everything changed and it was just okay. And it’s like I- I fell in
love with her, right? And I already loved her as she was in my tummy but it’s just a lot
different while she’s out and you see her and you know umm, you get to touch her and
smell her and yeah, I don’t really know how else to d

describe it.

Laura felt the same as Sarah, with being unsure during her pregnancy, and then feeling very in
love with her baby in the postpartum. She also described how time in itself adds to this sense of
love: “Cause it’s, yeah that’s, every day it’s, every, every day, every moment, every second
you’re falling in more in love with her.”

In addition to recognizing the growing nature of their love, the sense that their love for
their baby was unconditional was echoed among many of the mothers in this study. Ashley
spoke about being certain that she would love her baby no matter what. To this end, Kaitlyn
explained her love this way:
And umm it’s just yeah we are- we’re very in love. We love each other. It’s awesome having that unconditional love from someone, and you know there is no reason or you know anything behind it, it just is what it is, it’s beautiful.

Furthermore, some mothers described bonding with their baby as being the same as the love they had for them and when talking about how they experienced bonding with their baby they shared stories of how much they loved them. For example, Ashley explained: “Falling in love is definitely a bond, so they’re the same.” Similarly, Laura stated: “Love I, that’s just, love is bonding, that’s all I look at bonding as. I love that baby with everything I got right now.”

These excerpts show the deep emotional connection many of the mothers experienced as part of bonding with their baby.

Lastly, it seemed important for the mothers in this study to have their babies know how much they were loved and that this love would always surround them. Nicola simply explained that “I’m always here and that I love her,” whereas Desiree explained in more detail that she would always be there for her baby and would never be mad at her:

I would love her and you know just like let her know that you know she’s never alone right and I’d never get mad her for something stupid right and instead like I’d talk to my kids if they’ve done something wrong rather than get mad at them, you know.

For Sarah, she was determined that her baby would always know how much she was loved and that her day-to-day interactions would let her know this. Similarly, Laura explained that she would always tell her baby how much she loved her with the hope that “when she grows up… she’ll know the meaning of love.” Telling her baby how much she was loved was also something Isabel spoke about. She felt that love came naturally “with the whole having a baby”
and that she would want her baby to know that she loved her and that she did not regret having her.

Overall, a sense of love was prominent for all mothers, although their love was experienced in various ways, and seemed like a powerful element of their bonding process with their baby. For some mothers, their love for their baby and the bond they felt with them was the same.

Sense of fear. In addition to the more positive emotions that were a part of the women’s bonding experiences, some of the mothers also struggled with a sense of fear. This sense of fear was connected to bonding with their infant, but the source of this fear varied. For some, their fear was about feeling concerned that they would not be given custody of their baby, thus making their connection with their baby feel fragile and not yet secure. It seemed that opening themselves up to bonding with their baby, of whom they were not guaranteed to have custody of, was vulnerable and frightening. For many of the mothers, this fear had materialized with their other children of whom they lost custody of eventually.

Nicola was scared she would lose her baby, which she felt impacted how close she was trying to be with her baby. She explained: “I was scared at first they might take her from me. So I didn’t really want to get a connection. Right? But, they can’t really take her from me.” Her further reflection stated how she knew she was going to love her baby despite this fear that she may lose her daughter. Emily shared a similar fear where she felt she had no control over potentially losing her baby and was concern that history would repeat itself:

It’s hard all around, like for all of us women that are in here it’s, it’s hard for us just to know that like at any time like the Ministry can come in and just rip your kid out of your arms. You know like I’ve had it down twice. And like I still have that fear, with this one.
For Isabel, she also seemed to be aware of the possibility that having used substances may negatively impact whether she could keep her baby and so she tried to prepare herself for this option: “I didn’t want to be upset at her if someone came and took her away.” Although she still felt like she was bonding with her baby during this time, she also felt herself trying to avoid bonding as a means of emotional protection, in case she were to lose her child.

For Kaitlyn her fear was more about what her experience would be like bonding with a male child as she previously had only had daughters. She feared not being able to bond with him since she was used to being a mother to girls and had always wanted to have girls. She explained:

I was a little worried about when I was pregnant because I have two daughters and I really always wanted girls and so I gotta be honest with him, I thought I won’t bond with a boy, what if I don’t, what if I don’t love him, what if- you know what I mean like I mean I knew I would love him but I was just like what if I don’t bond with him, what if you know.

For Laura, her fear stemmed from a different source than the other mothers. She was afraid she may lose her baby due to health problems, which upset her greatly especially since she was not able to have her baby in her room with her. Her reaction to her fear was to want to be closer to her baby and feeling upset that she wasn’t able to be with her daughter for some time. She stated:

I just don’t know what I would do without her, if something was wrong. And then on Monday I found out she’s got a heart murmur, a hole in her heart, so I was just crying thinking I’m a new mom and they’re gonna take my baby away, because I thought she’s
going to die on me, like how could you be so happy and then take her away from me, I was thinking- asking God and why would he do that to somebody?

Overall, struggling with a sense of fear for women in this study impacted how they were experiencing bonding with their baby, regardless of the source of their fear. For some mothers it made them want to distance themselves from their babies to prevent getting hurt, whereas for others it made them want to be closer to their babies as a result.

**Sense of guilt and shame.** When reflecting on bonding with her baby, the experience of shame and guilt was prominent in Sarah’s interview. Her feelings of shame and guilt were connected to having used substances before her pregnancy, as well as methadone during her pregnancy. As is common for many mothers who are using opiates, Sarah was administered methadone during her pregnancy to ensure that her growing baby would not be negatively impacted by drug withdrawal. This can result in some babies having to be treated with morphine as they are withdrawing from methadone post-delivery. Sarah felt that her guilt and shame kept her disconnected from her baby at times. Sarah’s own words describe her experience best:

> Umm well because I was feeling guilty and shameful, umm you know there were moments I had to get myself back on track, because it’s not about me, it’s about [my baby], umm you know it kind of made me feel unworthy of- of having this baby, and this you know this child. But umm you know I had to snap out of that for her sake and for my sake, right, because I did do the best I could at the time with what I had, right.

Sarah felt that she was “a little bit misguided” in the sense that she had understood that her baby would not have to go through any withdrawal if she was using less than a certain amount of methadone. Having this expectation and then seeing her baby struggle once she was born was a
challenging experience for her and impacted how she felt about and experienced bonding with her baby:

I was devastated when she came out, because I wasn’t expecting for her to have to go on treatment. Umm and just to see that she was suffering and it was because of you know umm my addiction, therefore having to use methadone rather than street drugs to maintain through my pregnancy, the guilt and shame that happened, umm and just to watch this little innocent life go through something uhh fresh out of the womb was devastating… I would say that definitely is something where you know it was hard for me to bond with her because I felt guilty.

Her feelings of guilt and shame would subside when her baby was responding to the treatment, but would come back up again when Sarah watched her baby being treated. It was a matter of speaking about her shame to the nurses around her and realizing her baby was healthy overall that made her be able to bond with her baby, without feeling guilt-ridden.

**Sense of ambivalence.** For Isabel, her experience of bonding was impacted by a sense of ambivalence. She did not plan on becoming pregnant and tried to have an abortion, but it was too late to do so. She also didn’t feel like she would have gone into treatment for substance use if it wasn’t for her baby, but felt compelled to do so as she knew her choices were now directly impacting another human being. She stated that she overall does not feel like she regrets having her baby, but that her experience of having a baby to her is “different,” but not necessarily “good or bad.” She recalled struggling with not wanting to bond with her baby initially: “I was like not sure what I was gonna do and uh I didn’t really want to be around her or anything ‘cause I was afraid I was going to get too attached. Yeah, but I’m happy I did.” She described feeling bonded to her baby once she held her on her chest after birth but not wanting to accept this bond at that
time. Not knowing whether she would try to keep her baby or give her up for adoption also contributed to Isabel not wanting to become too close with her baby: “I still felt bonded when umm when I got up here, I just like because I didn’t know what I was going to do with her, I didn’t really want to get more attached or more bonded to her.” One of the challenges for Isabel was to take care of her baby, knowing this interaction would likely make her feel more bonded, while still being unsure about whether to keep her baby or not. Her words described this struggle as follows:

Umm, not really, I think it’s a little harder, whenever like, probably one of the reasons I haven’t come up with a name, because I feel like uh getting more attached to her if I potentially may not keep her, is like not really what I wanna do. But umm, but obviously like spending every day with her can’t really help but get attached. But those little things that are in my control like the whole naming thing and everything, umm just kinda set aside.

It seems that gaining some control in a situation that she otherwise found overwhelming and unexpected was helping her feel better, while still becoming more bonded to her baby. In a sense, her ambivalence allowed her to stay more removed from bonding with her baby, but did not shield her completely as she was feeling bonded to her daughter regardless of not yet having made certain decisions. Overall, it seems that feeling ambivalent was a reflection of not feeling fully ready to be a mother to her baby and take on this role, but at the same time feeling herself more bonded to her baby and loving her daughter in ways that she did not anticipate.

**Summary of emotional experience of bonding theme.** Overall, it seems that bonding for the mothers in this study included an affective component, including both positive and negative emotions. These emotions were a way to describe what bonding with their baby felt
like and in which ways they were enjoying it, such as feeling in love, and in which ways they were struggling with bonding, such as feeling fearful. It may be that other women at Fir were experiencing emotions such as guilt and ambivalence, but chose not to participate in a study that asked them to talk about their relationship with their baby, as it may have seemed too threatening to do so. Additionally, other women in this study may have also chosen not to disclose similar feelings for related reasons.

**Sense of Connection**

One of the ways women in this study experienced bonding with their children was through their sense of connection with their baby. Feeling connected with their baby allowed the women to feel more bonded and many mothers described their bond with their baby as a connection to them. In this sense, connection became a way to describe their bonding process in the interviews. In this study, mothers talked about a sense of connection in terms of the connection being unbreakable and feeling a natural closeness with their baby, spending time together as important for this connection, and crediting the initiation of this connection and the bonding process to sensory experiences.

**Sense of unbreakable connection and natural closeness.** Having a connection that felt both unbreakable and naturally close with their baby was an experience with which many of the mothers in this study identified. For Kaitlyn, her connection with her baby was something she perceived to be natural and not able to be forced. She stated: “It just happens on its own and that’s the beauty of it.” She also talked about it allowing her and her baby to innately know each other:

Umm connecting umm, like just having that connection that is just unbreakable, like you know that we just, we just know who each other are without even having to know, like
touch, smell, you know just those types of things, it’s kind of like an unsaid thing. It’s just there, it’s there or it’s not, it’s not something you can like kinda like try to have or fake, it’s just, it’s there, it’s a natural thing that’s just kind of between people.

Kaitlyn felt that for her bonding and connection were the same, so bonding to her was also a natural process. She explained:

Yeah, it’s just the time we have together and little things that just happen on their own, you can’t be like “Oh I’m going to bond with him right now” and like you can’ just go “Oh I’m going to pick up my baby and we’re going to bond,” it’s a natural thing that just happens.

For Sarah, she also felt that her connection with her baby was a natural closeness and that there was nothing she could do to make her feel any closer to her baby as a result. She explained:

I don’t think there’s anything else that I can be doing to be close to her, I just feel that “a” there’s the natural umm closeness between the mother and child and, and “b” that like I said there is nothing else that I can be doing to, to bring her closer to me.

Similarly to the other mothers, Nicola saw connecting with her baby as bonding with her and felt that this was a process that was very natural. She stated: “I don’t really know how to explain, explain the bonding part, it’s just- it’s just there… Yeah, very natural.” Ashley also explained that bonding felt natural and further described it as something that could be felt in their interaction. She also connected the bond to her baby knowing that she was his mother because he grew up inside her body:

It’s a natural bond that no one else can, you can’t really describe it… No one can take it away, so I think it’s neat… I can feel, you can just feel it in everything you do, you know it’s there. Just like when you put him down or he needs you or something, it’s just, it’s so
neat. To have someone that loves you and like on this world everything that he does he, well he just knows me right ‘cause he was in me so long, so it’s neat.

Ashley also talked about the impact of nature on the bonding process. She stated: “The baby automatically looks for a nipple right away, so it’s really neat how automatically nature does that.” In this sense, it seems that for Ashley saying that the bond felt natural was about it feeling comfortable, being connected to a sense of “knowing” of each other, and also being linked to the body’s ability to nurture her baby who instinctively knows where to look for nutrition.

In addition to feeling that their connection and bond to their babies was part of a natural process and a natural sense of closeness, many mothers also identified with their connection as being strong connections. For example, Ashley described her experience of connecting with her baby as a very strong connection that was unbreakable. For her, “it’s something that will last forever” and “a bond that no one else can take away or ever replace.” This was especially important to her as she was motivated to have this connection last as she was sad for no longer being connected with her other children. She described her experience this way:

Just umm a feeling that you know it’s never going to go away, that he’s always going to be there, that no one can take that away from you, that there is absolutely nothing that will stop you from like you’d do anything for that person and you know that they would do anything for you, so it’s really neat, so it’s the only way I can describe it.

It was important that her and her baby’s connection would last regardless of what may happen: “Yeah the love and then the bond will always be there like no one can take the baby, uhh no one can take my son, you know, no matter what even if he’s physically not here.” In this sense, she felt reassured that nothing could come between her and her baby. Barbara also spoke about connecting strongly with her baby. She explained that she felt “really bonded and connected”
with her baby and that “bonding and connection is like the same.” The importance in her connection with her baby had to do with how she viewed connections as a whole in her life. She described that she lives by connections and has a capacity to connect fast and to connect strongly:

Anything that I do connect with I- its 100%, like I don’t really grab on to small connections or just like things that are there, right, I just, the things that are most important in my life, like my kids and like people that are important, yeah, they’re strong and- I hold on to them- well, so yeah, I work hard for them.

Similarly to Ashley and Barbara, Kaitlyn perceived her connection with her baby as something that was special to her and that she believed would only grow deeper over time. She stated: “There’s just that special connection and I don’t see it changing, I just see it getting stronger.”

Overall, a sense of natural closeness and unbreakable connection both seemed important in explaining the mother’s bonding process with their baby. They felt strongly connected to their baby, believed that it was a connection no one could take away or replace, and described it as a connection that felt natural. Additionally, bonding and connecting was often referred to as the same process, with both feeling natural and unbreakable.

**Importance of spending time together.** Spending time with their babies, beyond taking care of their needs, seemed important for the mothers in this study as contributing to feeling connected and bonded to their baby. For Isabel, spending time with her baby was an important means for her to connect with her daughter. To her it wasn’t as important what they would be doing together, but she believed that bonding “is something that takes like different experiences and things you do and times you spend together.” For example, she seemed to enjoy lying with her baby, playing with her, and sitting with her. In comparison, for Emily it was important to be
able to spend time alone with her baby, since she felt she missed out on this with her other children. She explained:

Like I go in there a lot and there is a lot of times where it’s just me in there and [my partner] is going out for cigarette or just chillin’ in the room doing whatever. So like I get more interaction with her.

She described bonding with her baby by spending time together, which often included elements of either talking to her baby or making faces at her to get her to smile. She felt that her baby reciprocated this by smiling back at her and these moments seemed vital in contributing to her connection with her baby.

Similarly, Kaitlyn enjoyed having time to relax with her baby, knowing that normally she would have many other responsibilities and be “distracted by everyday things in life,” such as cooking and cleaning. Thus she felt that connecting with her baby by simply spending time with her was special. She described her experience this way:

Here we are able to just sort of lay around lots and relax and in the outside world it’s you know you’re just you’re living and you’re busy and you’re doing stuff and sometimes you can forget to take time to just hold the baby and just enjoy it ‘cause you’re just so busy with everything, but it’s been nice to be able to take the time and enjoy being a mother rather than you know just having to be so busy and crazy out there so yeah it’s been really nice.

She felt that having the time to be her baby’s main caregiver allowed her to feel closer to her son. She described being able to focus on cuddling, holding, and loving her baby, in addition to getting to know him. She stated the following:
Spending lots of time together and just getting to know each other… Learning his little you know cues and just kind of just learning what he likes and how- how to take care of him best and just yeah, just bonding right now.

In fact, she felt that connecting with her baby was about bonding with him and that bonding was a way she felt could best describe her connection to him:

[The word bonding] fits perfectly, and it’s, its I mean yeah I think it explains us to a tee like we’ve spent so much time just bonding and – and just like getting to know each other kind of or like you know like I am sort of learning who he is and what things he likes and what soothes him, and how you know just little things.

Desiree also felt that spending time with her baby was a way for them to bond on a daily basis. She enjoyed being able to see different changes in her baby, such as observing her taking more things in and following things with her eyes. Watching her baby react more to her environment and become more interactive seemed like it allowed Desiree to be able to play more with her baby. She also wanted to make sure her baby was not bored and left without any interaction, which motivated her to try to connect with her and play together as much as possible. She noted: “Yeah, I guess every day I see different changes, right. I just like being there to watch it all.” For others, like Ashley, spending time with her baby was “a special time” and often just included holding him and hugging him every morning when she woke up. This made her feel more connected to her baby, simply by continuing her morning ritual of spending time with her son as soon as she woke up and holding him in her arms.

Isabel talked about how having her baby with her all the time contributed to both feeling like she needed a break at times, to also missing her when she would not be with her. She attributed this feeling to being “a big part of attachment.” She explained:
Umm, yeah like having her like kinda like in your presence all the time, like on a consistent level, like uhh you know like when you wake up she’s there, when you go to sleep she’s there, you know and when you’re wanting to go out for a smoke unfortunately she’s there, you know and umm and I guess it’s just yeah like yeah even sometimes feeling like distress of like needing a break and not wanting her there when you know I drop her off at the nursery and go for coffee like missing her when I’m gone. I think that not in a sense like not having her around after having her around so much right is kind of like uh you know a big part of attachment too right like you know wondering if she’s okay or what’s wrong.

Her experience introduces the idea that for Isabel spending time with her baby facilitated bonding, but it also felt overwhelming when she wanted to take a break. It may be that suddenly being responsible for a baby who needed her all the time was particularly overwhelming as a first-time mother and not having planned to have a baby. Thus, she was experiencing mixed emotions in regards to her baby, both feeling closer to her and missing her when she was not with her, but also wishing she could have a break.

Overall, the importance of spending time together as a means to connect with their baby was something that many of the mothers enjoyed. Connecting with their babies was another way for the mothers to bond with their baby and become closer to them through spending time together.

**Initiation of bonding through sensory experience.** Mothers provided various answers about when they first felt bonded and connected to their baby. For some women, their bond started to grow during pregnancy, whereas for others it wasn’t until after they gave birth. It seemed that feeling and seeing the baby move during pregnancy, as well as seeing and holding
the baby after birth were times mothers started feeling bonded to their baby. Thus, sensory experiences such as eye contact, physical proximity, touch, and even smell all played a role in the mother’s bonding process.

Kaitlyn recalled feeling excited for her baby and loving her baby while she was pregnant, but not feeling bonded to him until the postpartum. She explained:

Oh yeah I was totally excited and I loved him and I was really you know anxious for him to come and just couldn’t wait to hold him and love him and, but I mean what I have now, there is no way I had it when I was pregnant ‘cause it’s just, it’s so much different now, so I couldn’t say that I had it then ‘cause it’s just I mean it’s umm, it’s just so much different, when you have them in your arms and you’re caring for them and stuff. For me it’s more, it was definitely after.

She also talked about intentionally taking care of herself during pregnancy for her and her baby’s health and enjoying seeing her baby on the ultrasound. However, she still felt that her bond with her baby was much different once he was born. She stated:

Like the maternal instinct was there, when I was pregnant, like you know the nurturing mothering part like you know umm even before he was born, making sure I ate healthy stuff and took my prenatal vitamins and you know and we’d go get the ultrasound done and I’d see him moving around, and I’d cry, and I was “Oh my god, there’s my baby.” And so like that but as far as like the bond, no. This to, I mean maybe a little bit, but uh nothing to what it is now.

Kaitlyn further explained that she first felt bonded to her baby the day after he was born, as she was not able to look at him, hold him, and see him react to her until then, due to complications she had experienced with her labour. She stated:
Umm it more like you know there was that feeling of like love and stuff while I was pregnant but I wouldn’t really say bonded, like it happened more I would say it happened the day after he was born, the first day like I was just like so – my labour was extremely brutal, and so I was just trying to recover and stuff and the dad was here and he was pretty much holding him a lot and stuff like that, but the next day it was just him and I and yeah we just bonded then at that point and it’s been like growing every day… Mmmh and also like seeing him here, being able to look into his eyes and hold him and see his reaction to me and stuff that just you know makes it grow all the more so yeah. Similarly, Ashley described feeling first bonded to her baby when he was born and she had a chance to see him “coming into the world.” She also recalled feeling connected to her baby during pregnancy and feeling excited about her baby, but felt that seeing her baby and having him with her after giving birth to him better supported her feeling bonded with him. She explained:

Yes as soon as he was born, like the second. And being in my stomach as well, feeling him in there and uh that was a connection too… It’s different. Seeing their face and everything and their actual being is different. Being inside you is, I miss it. So… Yeah, yeah just knowing you have a life inside you that you created and it’s moving around and you don’t know exactly what he looks like yet, it’s just neat. So when they’re born it’s just a surprise.

Elements of seeing and touching as important for bonding were also expressed by several other mothers. Isabel explained that she felt bonded “pretty much right after the doctor put her [baby] on [her] chest.” Sarah explained her experience as follows:
Through my pregnancy I was very unsure and I was scared and then as soon as she came like everything changed and it was just okay. And it’s like I- I fell in love with her, right? And I already loved her as she was in my tummy but it’s just a lot different while she’s out and you see her and you know umm, you get to touch her and smell her and yeah, I don’t really know how else to describe it.

Barbara had a similar experience when asked when she first felt bonded to her baby:

Yeah like as soon as I seen her, when I went, ‘cause I- she went to the NICU downstairs and I came up here, and before I came up here I stopped to see her and I was in the bed ‘cause I had a c-section with her, and just holding on to her, the skin to skin feeling was yeah, I didn’t want to leave her there. And seeing that she wasn’t on oxygen and she was doing it all by herself, that was a good feeling too just ‘cause she was so early and I was really worried about that.

In contrast, two mothers described first feeling bonded to their baby during their pregnancy. Emily remembered being able to see her baby move around and identifying which body parts she could see. She explained:

When she was inside of me… I, I would be laying down or like sitting and like keep be able to see like my stomach move up and down and this way and that way and you’ll see her like kick, right, ‘cause like when she’d get her hand right up there, like her foot, you could actually see the indent of her foot or her hand like up the stomach.

Laura also first felt bonded to her baby when she could feel her move. Being able to feel her baby move made her fall in love with her baby, but also brought up a lot of emotion for her as she worried about her baby’s health. She explained:
The minute she, ohh, when she kicked… When I started feeling her in the tummy.

‘Cause I didn’t want to be pregnant at all and then I was like “God I don’t wanna have this baby, I’m not ready, I got a two year old” umm and then when I start feeling her move- I just fell in love, like when she’s in the tummy, umm when she get hungry she’d be kicking real hard and she wouldn’t stop kicking until I ate, and I just thought “Oh she’s got a little attitude in there already,” I can’t believe it, like a little frame like that and she’s kicking me like that, it’s so cute, and then when she’s born too I guess, ‘cause there is so mu- so much emotion going through. Thinking when she’s born, is she gonna be okay, is she gonna be healthy, is she gonna be- breathing, is she- like all the- bad thoughts.

Overall, mothers often first felt connected to their baby during pregnancy, when they also noticed feeling love for their baby. For some mothers, this also became the time they first felt bonded to their baby. For other mothers, they felt that being able to hold, see, and smell their baby was the moment that they felt a specific connection with their baby and these elements enabled them to feel bonded to them.

**Summary of sense of connection theme.** Overall, for the mothers in this study, connecting to their baby was a powerful experience and either further facilitated feeling bonded with their baby or was seen as the same as bonding with them. Spending time with their baby enabled them to feel connected to them, which they experienced as strong, unbreakable, and natural. For most women, they first felt bonded to their baby either as early as during pregnancy or in the postpartum, once they were able to look at and hold their baby.


**Sense of Nurturance**

One of the ways in which women in this study experienced bonding with their babies was through nurturing them. The common theme *Sense of Nurturance* was about taking care of their baby’s needs, both physically and emotionally. Examples of this were changing their baby’s diaper, feeding them, and soothing them, among others. For some mothers, this also included wanting to make sure their babies were protected from any possible harm. This section addresses the sub-themes of *Attending to Physical and Emotional Needs* and *Sense of Protection*.

**Attending to physical and emotional needs.** This sub-theme included both the instrumental caretaking duties the mothers undertook as well as the emotional caretaking they were engaged in. It was an experience that all mothers described in the study. For example, Nicola talked about holding her baby, changing her, feeding her, and giving her baths when providing examples of bonding with her baby. Taking care of her baby as part of a routine allowed her to attend to her baby while also engaging in other activities throughout her day. She explained: “Oh, I feed her every two hours. I feed her and after I feed her I go for a cigarette, wash my hands, and I wait, feed her again.” She also talked about ways she soothed her baby, including holding her until she calmed down. She stated: “I just hold her, tell her it’s okay, comfort her… I let her know that I’m here, close by.” She was careful not to hold her baby too much so that she wouldn’t get “too spoiled” but took comfort in knowing that her baby would calm easily when she would hold her, compared to when others picked her up. She said:

I think, she knows, she knows it’s me when I hold her, right. Like everyone else she’ll start crying and all that. I guess it’s the smell like, that’s how she knows it’s me, or the way I hold her, I don’t know.

Similarly, Desiree also spoke about soothing her baby and learning how to calm her when she was upset. She believed that mothers should be picking up their baby when the baby is
crying, as she felt this usually meant that something was wrong. One way she had learned to soothe her baby was by holding her daughter tight when she was upset as it calmed her down. Similarly to Nicola, she also felt that it was challenging for anyone else to calm her baby and that usually this resulted in her baby being more upset. For Desiree, it had been particularly important to learn ways to calm her baby as she was allergic to many of the milk formulas she was given, thus upsetting her frequently. Desiree realized that staying calm was best for both her and her baby as her daughter would often mimic the emotion Desiree was feeling. She explained:

Umm, it was really hard at first ‘cause she had the milk allergy, where she was like crying 24/7 right, but just stayed calm because the thing is there is no point getting frustrated right, because then she’ll get more and more upset, right, so I just stayed calm and when I can’t handle the screaming anymore I just tried to think about something else as I’m taking care [of her].

She felt that attending to her baby when she was upset was like “a crash course in each other,” but she learned to take care of her baby and calm her down, without feeling overwhelmed herself. She elaborated:

I just always try just be as calm as I can with her, you know. Like if I’m overtired or something right, still try to stay relaxed, there is no point in getting like agitated or anything like that right. It’s just going to make her more fussy.

Desiree had hoped to be breastfeeding her baby as “it would be such a wonderful experience,” but was not able to produce enough milk. She “felt horrible that it wasn’t coming in,” but eventually felt at ease that she was still able to feed her baby and take care of her, even if it meant feeding her with the bottle. Given that the initial period of trying to feed her baby was
extremely stressful, she noted that she actually felt more connected feeding her with a bottle at this point: “I feel like I bond more with her feeding her with the bottle.”

Kaitlyn also spoke about soothing her baby when he was upset and finding that holding him and looking into his eyes was calming for him. She explained:

And when he cries and I pick him up and just me holding him soothes him, and just when we have eye contact when he just looks up and stares into my eyes, and there’s, we just stare at each other, that to me is really cool.

She had also noticed that her baby seemed to respond differently to her care than anyone else’s. This is something that she took as a sign of reassurance that she was bonding with her baby, as she was able to impact him in a special way and he was responding to her care specifically. Her words showcase her experience further:

Umm well just how he reacts to my touch and my care for him and how he is when I am not with him and when I come back how he responds to me and umm yeah stuff like that.

Kaitlyn enjoyed learning her baby’s cues about what he liked and how to best take care of him as part of bonding with him. She also felt that taking care of him, loving him, soothing him, feeding him, and holding him were all examples of nurturing her baby. She explained: “It’s just very important to spend lots of time and like cuddling and holding them and just loving them to bits and pieces.”

For Ashley, nurturance was about holding her baby, picking him up when he was sad, and feeding him. She felt that holding her baby and having him look up at her was a special time between them. Similarly to Desiree, she was also not able to breastfeed her baby, but for different reasons. When she tried to breastfeed her baby she found it to be too upsetting as she was reminded of not having been able to breastfed her other child after losing custody. She
would think of the past and “drift off a little bit.” Even though she was not able to breastfeed her baby, she still found feeding him to be a time of bonding as she was able to hold him, have him look at her while being fed, and feed him her own milk (via pumping). She noted: “It’s like bonding when they look up at you and they need you, like physically you’re nurturing them, right?… Yeah being able to nurture them and your body knows how much to make and feed them, it’s just neat.” This way she still felt like she was able to provide her baby with “energy and health” to nurture him.

Barbara’s approach to attending to her baby’s needs was to be attentive as quickly as possible and to use humour. She felt that their connection with each other enabled her to know how to best calm her baby. She stated:

Mmmh, I attend to her right away. Usually like, and I don’t know she just knows, I don’t let her cry, and she doesn’t cry. It’s weird that like our connection, I get up and I like talk to her, I’m like oh my god she’s freaking out and she’s not really freaking out, but I kind of make fun of her, ‘cause she like doesn’t know how to freak out or something. She grunts and groans and that’s about it. And she knows that I’m happy and that I’m right there, so I think she knows it, ‘cause that’s why she doesn’t freak out. I pay attention to her.

It was also important for Barbara to attend to her baby and try to calm her as soon as possible without being distracted by anything else. This was her way of prioritizing her baby:

I notice other moms that are like on their cellphone and stuff and trying to attend their baby, their babies aren’t- calming down as fast as when I see them when they’re, they’re actually full on engaging in, in interacting with their babies. As for me, I, I am never on
my phone and I give up my social networking ‘cause it’s just not important to me right now.

Another example Barbara provided for attending to her baby’s needs was giving her a bath. Barbara felt that her baby enjoyed this time, as her daughter appeared relaxed and comforted. She interpreted these signs as her baby knowing and feeling that she was safe.

Sarah described feeling most bonded to her baby when she was holding her in her arms, either during times of feeding or when her baby was sleeping. She felt that putting her baby’s needs first facilitated their bonding process: “I feel like umm you know the more that I put her-her needs first and the more that I attend to her needs, the more that we get to bond, right.” She also explained that taking care of her baby’s needs took care of her own needs as well:

Doing that umm takes care of what my needs [are], ‘cause my needs are to be a mother to [my baby], my needs are to put her needs before mine, right, so it’s kind of like umm a win, win.

She described a shift in the type of concerns she had on a daily basis. She now focused on when she was going to feed her baby next, if she needed to be held, and if she needed a diaper change. A specific example of when Sarah felt that she was able to nurture her baby was when her baby was crying as a result of withdrawing from methadone, which Sarah had been on during her pregnancy. She responded this way:

I just held her really close to me and breastfed as much as I could, because that also cleanses her tummy out, like if it, she gets cramps and stuff it helps her to you know get, get that- out, out of her system and um also she feels nice and warm and close and so the snuggles and the love is you know the, the medicine that I replaced it with, rather than having to give her any more. And she’s made it through. Yeah, she’s doing quite well.
Being able to care for her baby while she needed her most was important for Sarah, especially since she knew her baby was in pain as a result of her actions.

Laura described bonding with her baby as loving her, caring for her, and attending to her needs “’cause if you didn’t bond with them you wouldn’t even be doing any of that.” Some specific examples of bonding with her baby were feeding her, holding her, and talking to her. She explained: “Feeding I guess is most of the bonding because that’s all they do right now is sleep and otherwise I’m holding her practically 24/7, that’s I guess that’s a way of bonding too... Oh talking to her too.” She knew that being with her baby, holding her, and feeding her made her happy and soothed her when she was crying. She also felt that she was able to soothe her baby in a way that no one else was able to, as she had noticed that when she picked up her baby she stopped crying right away. She recalled:

When- when the nurses had her the first night, umm they said she’s crying all the time and fussing and then when she came here with me after I healed up from the surgery, she was fine, like- like- like they’re saying “Oh, she’s crying all night” and as soon as she’s in here she wasn’t crying, she’s happy.

For Emily, it was important to be directly involved as her baby’s caregiver. She described “attending to her needs and wants and doing what I can do to help her be happy,” including feeding her, holding her, soothing her, changing her diaper, and bathing her. She felt she was bonding with her baby regardless of what she was doing with her: “Any time I’m with my daughter I’m bonding with her, anytime I’m holding her, feeding her, or changing her diaper, I am bonding with her.” In terms of soothing her baby, she made sure to always be by her baby’s side and troubleshoot what she needed. She described this process as follows:
It’s ‘cause she knows I’m right there and you know I’ll figure out what she’s crying about, whether it’s a diaper change, whether she’s hungry, whether she just needs to be held and loved. You know like I’m always trying to figure out what she’s crying for. And a lot of times I got it right on the ball. She calms down.

Emily spoke about the importance of nurturing her baby by holding her, which also facilitated them bonding with each other. She explained: “Like we bond good together. She is happy to always be in my arms.” She further said:

Holding her. Having her close. You know no matter how close it is, even if it seems like you’re smothering her when you’re not, you know, just, and her just grabbing on to your clothes and just like holding on and not wanting to let go. You know like I talk to her a lot, I sing to her too. You know she loves it. She loves hearing my voice, she always-she always looks up right at me.

Similarly to Desiree and Ashley, Emily had hoped to breastfeed her baby, as she admired the body’s natural ability to nurture her baby. In addition, she enjoyed being able to breastfeed her other children. She stated:

Well ‘cause I know that like um the milk from the breast is good you know and I just find that when you’re breastfeeding like the baby gets more bonded to you, because they’re so close to you and like close to your heart, you know and just like how um I’m not really too sure.

Despite her desire to breastfeed, Emily was not able to do so as her baby became used to being fed with a bottle. She had been given a bottle after she was born because Emily was undergoing surgery after giving birth to her daughter. She felt that she “missed out a little bit” as a result and that there would be “more of an attachment going on” if things had been different. She felt
reassured however that they did the “responsible thing” and that she was still able to nurture her baby:

It feels kinda, it feels like I can feel a little bit of an emptiness there because of that. But I mean like I don’t mind breast-pumping and you know I can make sure there is always food there for her you know and that she’s not always drinking that formula.

Isabel also bonded with her baby by attending to her needs, but in contrast to the other mother’s experiences, it was part of a learning process about how to be a mother as this was her first child. Additionally, since she was undecided whether she would keep her baby or give her up for adoption, she knew taking care of her baby would further their bond, while still leaving her feeling ambivalent. She explained:

I am, um that’s what I’m here to do, is interact with her and I gotta take care of her and just unfortunately it gets me more attached every day, but I think it’s a good thing too, right. Nobody really expects it to be easy to give up a kid right, so obviously there’s nothing I can, I can really do to prevent being upset about it, if that’s what would happen. She felt that with time she was starting to feel more at ease with taking care of her baby. She knew she was “going to learn more stuff” to make her “more efficient to handle her and deal with her and make her happy- figure out what she wants.” In addition to learning how to take care of her baby she was learning how to read her baby’s signs: “Just trying to actually start figuring out like her way of like telling me what she wants to, right like, her putting her hands in her mouth and stuff meaning she’s hungry and all that kind of thing.” She had learned that in stressful situations, such as when her baby was crying, it was best for her to stay calm: “If I just chill out and stay calm then she’s pretty calm or she just does her little freak out for a little bit and then is pretty calm after. But she totally feeds off of your like vibes.” Isabel considered
feeding her baby to be “a caregiver thing” and observed that her baby seemed to drink more milk when she was feeding her compared to someone else, but wasn’t sure if that was connected to how she was feeding her or the fact that she was the one feeding her.

Overall, attending to physical and emotional needs was one way through which all mothers felt bonded to their baby. Nurturing their babies allowed them to feel a stronger mother-baby connection.

**Sense of protection.** *Sense of Protection* was the second sub-theme of *Sense of Nurturance* and was relevant for all mothers in this study. It was an extension of caring for their baby, in that they also wanted to make sure that their baby was protected and safe from any possible harm. It seemed that for the mothers it was extremely important to ensure their baby’s safety, often having been in unprotected situations and environments themselves. A sense of protection was connected to bonding for the mothers in this study as their concern for their baby’s safety and health was another way for them to nurture their baby.

For example, Nicola shared several examples of when she felt protective over her baby and wanted to assure her baby’s safety. She and her sister had arranged for her sister to be present during her custody meeting so that if she would not be given custody her sister would be able to step in and take her baby. This would have ensured that someone within the family would care for her baby versus putting her daughter into the foster system, which she believed to be a less protective setting. She described herself as being “very protective” of her baby, which led her to take her baby out of the nursery as she was concerned about her daughter becoming sick from another baby who had a bacterial infection. Even after falling asleep with her baby in her room, which was not allowed, she felt that she had made the right decision in order to ensure
her baby’s safety. Desiree shared similar concerns about putting her daughter into foster care and the lack of patience someone else may have with her baby. She explained:

I don’t want her to end up, going like if I did give her up I wouldn’t want her to go somewhere bad, you know, or like get hurt or you know if someone couldn’t handle her crying and decided to like shake her or something like that, you know, like, like you never know what other people are gonna do. So, I can only know what I am going to do, right?

She felt determined that she would “never let anything happen to her” and felt satisfied in knowing that she had fought hard to make sure that she would be able to keep her baby.

For Kaitlyn, it was about protecting her baby and providing him with a safe environment. She described her hopes as follows:

Well just protect him from, everything that he needs to be protected from, make sure that he umm I mean safe could mean a lot of things that he feels safe and secure just in his home, and, and umm like that he’s fed and clothed and nurtured and loved and, and umm that he’s kept from bad people, umm you know violent people, abusive people, people that are just not good people to have around, you know just make sure to shelter him from all that stuff and, and just always teach him right from wrong and, and just be there for him sort of thing you know.

She also felt that it was important to do her best to protect him from living a life similar to her own and thus prevent him from struggling with mental health and substance use. She decided that one way of doing this was to be honest with him about her experiences and struggles. She indicated this as follows:
Well, I mean it just umm it just drives me to make sure all the more that I protect him from you know ever getting into that type of lifestyle and you know I can only do so much but the parts that I can do I really am going to make sure, and, and really do my best with and like you know it’s just I, who better to be able to try and guide him a way and teach him about stuff like that when you’ve been through it. Like I can you know share my experience with him and, and be very honest and open with him about the really bad scary parts of, of that life and, and so yeah.

For Ashley, both her own experience growing up and having lost custody of her other children contributed to her wanting to protect her baby. As a child, she felt unsafe and neglected by her mother who was struggling with alcohol abuse. Having felt unsupported herself, she felt determined to take care of herself better and get help both for her substance use and depression so that her baby would not be negatively affected. She recalled:

That alcohol definitely, my mom wasn’t there for me, when I was a kid and I remember the smell of alcohol and her attitude change and I don’t want him near it, so… I know what it was like for me, so. And it was very, very neglect, they neglected me, and weren’t there for me and their bottle was more important. I don’t need that. I don’t want him to ever feel the way I did.

Having lost custody of her other children also contributed to Ashley wanting to assure her baby that she would always be here for him, do anything for him, and stay with him. She was trying to protect her baby from having to go through what her other children went through and from feeling unsupported.

Similarly, Barbara wanted to make sure that her baby would not have to go through struggles that she experienced as she was growing up. She also wanted her baby to have
someone to talk to and confide in. For Barbara, her children confiding in her was a safer option than having no one to talk to or confiding in someone who would not be able to be supportive or safe. She explained:

They won’t go through the stuff that I went through, feeling that like I had to confide in other people that I, you know, I want them to- to confide in me and come to me, it’s safer… My mom wasn’t able to protect me ‘cause she never knew anything that was going on in my life, so and I didn’t really feel like I had to tell her anything ‘cause she wasn’t interested and- and if she was then maybe things would have went different.

Laura was also concerned with her baby experiencing the same difficulties she did.

Having grown up surrounded by alcoholism and partly in a foster home, she recalled feeling unsafe many times. She turned to alcohol herself at age twelve, but was certain she wanted to keep alcohol away from her baby as “there’s always something bad when you’re drinking.” She was willing to do whatever she could so that her baby would be protected. Since she was also sexually abused, she stated: “It’s scary to think of, it’s, you know it probably happens to one out every however many women. You just don’t want her to be that one for- for something bad to happen to her.”

For Sarah, protecting her baby was about having her know she was safe and protected by her mother. She considered this to be a unique part of her relationship with her baby and resulting from their closeness with each other. This is how she described this in her own words:

Umm the closeness of- of holding her close to me and knowing that she feels safe and she feels protected and that no nurse or doctor or- or nobody can give her what- what I can, because I am her mother, she was attached to me, right? Umm, I bared her in my- in my
belly and I hold her in my arms, so it’s just nice to know that she depends on me completely for the love and attention, and care.

She also commented that she was hoping to prevent her problems with substance use from negatively affecting her baby, which had occurred with her first daughter. This included not sharing her past of having had problems with substance use with her baby until she was older. She stated: “I don’t know if I want to expose my addiction to her or if it’s necessary umm or if it’s appropriate, I don’t know right now.”

For Emily, her sense of protection with her baby was about ensuring a safe and healthy environment for her child now and in the future. For example, she spoke about her ritual of changing her clothes after smoking so that she could take care of her baby without her smelling the smoke. She also talked about wanting to prevent any bad influences from being around her baby, including only allowing her friends to visit if they had been clean from using any substances for several days. Emily also described herself as being “a very cautious parent, especially to a newborn,” which included trying to figure out “the boundaries” of taking care of her daughter. She explained this as follows:

You know so where it seems like I’m not really caring for the kid, I am but I’m just like I am really cautious when it comes to that like ‘cause I don’t know exactly know what she needs or what she wants, you know so I guess I am just protective and I’m making sure that my child’s safety is always there no matter what.

Part of how Emily was being protective and cautious with her baby was by holding her in a special way and watching her fall asleep, which was meaningful to her. She considered this as bonding with her baby as it was her way to make sure her daughter was safe. It was also important for Emily to raise her daughter without any substances around her, including alcohol,
and being a protective parent in terms of the way she would dress her daughter and the activities she would do with her in the future.

Lastly, Isabel also hoped for her baby to avoid being put into foster care as she considered it to be a less stable living situation than staying with her or being adopted into another family. She also alluded to wanting to prevent her baby from being with a family that had problems that would result in her being moved around again. She explained:

Yeah and a stable one, like she shouldn’t be, I don’t want her in foster care. ‘Cause that’s just jumping around everywhere. And umm I just think that yeah I’m not sure how many different options there are, but whether or not, whatever the options are, as long as you know she has like a, a family and just one family and that’s a good family for her to be in and there’s not gonna be any like issues why she needs to you know be put other places and keep moving and all that kind of stuff and yeah then that’s what I want for her.

Stable life.

Independent of Isabel’s ambivalence about whether she wanted to try to keep her baby or whether she would give her up for adoption, she hoped for her baby to be brought up in a stable and safe living environment. She also wanted to try her best so that her substance use problems would not negatively impact her baby, since she felt that her daughter was not at fault for any decisions she had made when using drugs. She stated:

I made the decision to you know harm my body and you know harm my life and the way I lived or whatever by using drugs, she didn’t make that choice and she didn’t make that mistake, and I didn’t think that that’s something she should be born into.

Overall, a sense of protection was prevalent for all mothers in this study. This component of the bonding experience conveys the importance the mothers placed on their babies having safe
living environments and protection from harm. It also shows that they felt it was their responsibility, as their baby’s mother, to make sure their baby was safe. Thus, their efforts to ensure the safety of their babies were part of how they bonded and connected with their babies.

**Summary of sense of nurturance theme.** In this study, mothers felt that taking care of their baby’s emotional and physical needs and protecting their child from harm were examples of how they were bonding with their baby. Their nurturance of their baby was something they felt responsible for and engaging in the different elements of nurturance helped establish and maintain their bond with their baby.

**Sense of Future**

One of the ways in which women in this study experienced bonding with their babies was through visualizing a sense of future with them by envisioning a continuing relationship. For some mothers, this included voicing specific desires for their baby’s happiness, envisioning how they would be spending time together, and sharing how they would (continue to) carry on cultural traditions with their babies.

**Desire for continuing relationship.** All of the mothers in this study envisioned spending time with their babies in the future, including in the weeks and months after they left the hospital and years down the road. They also shared desires that they had for their children’s futures, mostly consisting of wanting their babies to grow up to be happy. They saw themselves as being an integral part in ensuring this happiness. This desire shows an expectation on the mother’s part that their relationship with their child would continue and be filled with love, care, and intent. In this sense, the bond that they had already established with their children allowed them to envision their futures together, while working towards maintaining their bonds into the future. Envision a future together was connected to both imagining activities the mother’s would
engage in with their babies and sharing a desire for their child’s growth into a happy person, guided by a set of values, and with a supportive and involved mother by their side.

Many of the mothers talked about wanting to take their babies to the park, on nature adventures, and get them involved in sports in a few years. For example, Nicola was looking forward to showing her baby “the outside world” by going on walks to the park and the beach and show her “the sunshine, the ocean, the grass.” She was filled with excitement: “I can’t wait for the future, next week, get outta here, do normal things.” Desiree was also looking forward to going for walks to the park with her baby and envisioned going camping with her once she was older. Some of the mothers thought of ways they would be active with their baby and get them involved in sports. Kaitlyn was excited to go “swimming, bike riding, [and] playing together.” She explained: “I look forward to those days when we can just run around and play, you know stuff like that.” Ashley also envisioned teaching her son how to play hockey and other sports. Having the opportunity to reflect on her and her baby’s relationship as a part of participating in this study made her “think positive about the future with him,” which encouraged her to think of things to do together. Sarah and Emily were hoping that their daughters could try out different sports to see which ones would “fulfill [their] interests.” Emily in particular wanted to also go hiking, swimming, and skating with her daughter as those are things she had enjoyed growing up. Isabel, still unsure of whether she would keep her baby, talked about playing sports and riding bikes with her daughter in the future.

In comparison to some of the more active examples of joint activities, some of the other mothers thought of other ways to spend time together with their babies once they were older. Barbara was looking forward to making crafts with her daughter, including “quilting… crocheting and sewing.” Laura envisioned her and her daughter playing with the leaves that had
fallen to the ground in the fall and “dancing in the rain” together. Isabel had ideas of travelling with her daughter and enjoying “kids’ holidays, like Easter bunny and stuff.”

In addition to doing fun activities with their children, the mothers also had a vision for how they were hoping their children’s lives would turn out, with them by their side. For example, Desiree, Kaitlyn, Ashley, and Laura all talked about wanting their children to grow up to be happy. Desiree further explained:

I just care about what happens to her, you know. I don’t want her to end up like growing up and not being happy, you know, it’s not fair… I guess you can’t really ever know if that’s going to happen right, but you can try.

Some of the mothers also specifically talked about passing on certain values to their children. Kaitlyn described this as follows:

My idea of being a good mom is like just helping guide your child to becoming a good citizen, a good person. Ummm you know with good morals and values and, and you know has dreams and goals and wants to be somebody in life and is motivated and, you know I can, that’s my job to teach him how to be that kind of person and then when he’s old enough, he goes out and does it.

Barbara believed that raising her children with a specific set of values would make their lives easier down the road. She stated:

I believe trust and respect and loyalty and honesty is what they should thrive on. It’s what I thrive on and it’s what’s most important to me. And that’s what I want to really like put into them. ‘Cause it, that would make me extremely happy to have them come up to have these morals and these things under there. So it’s all the time, well life will be easier I think for them, yeah.
Emily also believed in the importance of honesty and that children “deserve to know the truth about everything.” She felt that her family was not honest with her when she was growing up, thus motivating her to answer her daughter’s questions honestly. She explained: “My daughter, she could ask me anything about me and I’ll be honest. I’ll be brutally honest, you know ‘cause I don’t believe in, like I said I don’t believe in lying to children.”

Further to wanting their children to be happy and be raised with a certain set of values, mothers in this study also hoped to be involved, supportive, and accessible parents to their children. For example, Desiree hoped to be a positive influence in her baby’s life, be patient with her, and attend to her needs. She explained: “Just always be patient with her, and listen to her when she starts talking and let her know that she has my attention, and umm like not neglect her, you know? Or ignore her.” Kaitlyn described wanting to be an involved mother and not someone who would be “sitting on the sidelines,” so that they could continue to remain close with each other. She was looking forward to interacting with, talking to, and hearing how her son “feels about stuff.” Her vision included the following:

I always wanna have like dinner together at the table where we talk about how our day went and always just hang out and spend time together and, and like you know do activities together and, and I wanna be involved in his life as much as possible.

Similarly, Ashley wanted to make sure to be accessible to her baby in any situation and that they would have the kind of relationship where he could confide in her whenever he needed to:

Umm I’d let him know, just I’ve, no matter, I would not judge him or that he can come to me for anything and I’ll be here from, and I’m going to try to help him and if yeah if he has a problem with anything I’ll be there for him.
Sarah also wanted to make sure to be supportive of her baby in the future and as their relationship would continue to develop:

Mmmh, well I can see it developing umm into a deeper bond as you know as she grows and- and umm takes ownership of different characteristics or umm different traits or different talents umm, it’s gonna be umm you know an amazing process for me to watch her develop and then just to be supportive, umm with the things that she acquires.

While reflecting on their futures with their babies, two mothers shared thoughts about ways that their mental health problems may impact their interaction with their baby. For both Laura and Barbara, this was related to not being able to envision going to places or being in certain places as a result of the anxiety they experienced.

For Laura, she was worried that her anxiety of walking alone at night would impact being able to go to places at night with her daughter, unless someone else was with them. She explained that her fear stemmed from having been sexually assaulted in the past and fearing that another assault would occur if she were to walk alone at night. She said: “I don’t think I’ll be able to even walk at night-time with her. It’s just something that will not ever happen.” For Barbara, she anticipated being anxious in settings with crowds as those were anxiety provoking for her in the past and presently. She knew that her daughter may be upset to miss out on certain events, so she considered going to settings that would have many people, but staying on the periphery while she would have her partner go further with their daughter. She explained:

I know she’ll be upset when I don’t wanna go somewhere where there’s a bunch of crowds, like probably like umm when they do their float thingies, umm I can’t remember what they’re called, parades… You know like yeah I’ll take her but I’m gonna be like in the back and uhh as long as I can see her it’s all good, but I won’t be like right in there.
You know [my partner] is more of the crowd person so he’ll most likely be up in the front with her while I’m in the back, trying to stay away from everything. In order to “keep her [baby] happy” she considered putting her fears aside as much as possible to be able to not have her anxiety impact what activities she could do with her daughter. She explained: “[I’ll try to] just put my fears aside and my anxieties aside. I will. Anything for my daughter.”

Since both of these mothers were still able to talk about envisioning their futures with their babies, it did not seem that their concerns would prevent them from continuing to bond with their children. However, there may be some instances where they would need to prioritize their own comfort and safety over engaging in an activity with their child that would be anxiety-provoking to them.

Overall, thinking about their future with their children allowed the mothers in this study to envision themselves as an active parent in their child’s life. Two mothers voiced concerns over not being able to engage in certain activities with their baby, because of their problems with anxiety. It seems that overall the mothers mostly shared positive examples of how they thought about their future with their baby and their continuing bond with each other.

**Sense of cultural traditions.** *Sense of Cultural Traditions* was one of the two sub-themes of *Sense of Future* and was relevant for some of the mothers in this study. Five of the six mothers who identified as Aboriginal talked about involving their children in cultural traditions that were important to their heritage. Some of them already had a chance to do this after their baby’s birth, while others were looking forward to doing so in the future.

For example, Nicola talked about having smudged her baby after her birth. She stated “It felt good to see it, ‘cause I want her to be involved with it, with my- with our traditions.” She
also wanted to bring her baby to a sweat, familiarize her with Aboriginal cultural teachings, and have her learn her native language. She explained:

Like umm understand that some of our traditions were lost, like with my generation, ‘cause I don’t know the language, I don’t know any other cultural teachings, so I think that would be very important for her to learn… I want her to experience so it’s not lost, right… It’s important, very important to know, to know your own language. And to teach- and to teach it to her, well I won’t be able to but her dad will be able to teach her her language, right… Yeah. I don’t want her to feel like that; left out, when she doesn’t have to be.

Similarly, Ashley also wanted to “teach [her son] the Native way,” including how to sing and drum. She explained: “I sing and drum and everything too. And so actually a lot of my cousins do… everybody drums, everybody sings.” Sarah talked about bringing her baby to pow-wows and smudges and once she was older to sweat lodges as well. She wanted her baby to know “the basics about the culture.” Emily also wanted to teach her baby about her background, which was Aboriginal and Caucasian. She stated: “Both backgrounds is very important to teach a child, you know especially when you’re multicultural basically. So like it’s all important for a child to learn about all of their backgrounds.”

Lastly, Laura had welcomed her baby into the world with a welcome ceremony, which included having an elder present who “sang the woman’s warrior song… gave her a little medicine bag, brushed her up with cedar boughs, brushed her up with the eagle feather, and said a prayer.” She also had her husband bury her placenta by a cedar tree, “so she’s grounded and she’ll grow with the cedar tree.” For the future, she wanted to give her baby a traditional name. She stated: “Name, we gotta have a umm, we gotta give her an Indian name.” She also wanted
to keep her baby’s belly button, though she knew some people did not understand this tradition. She described the following:

The, I don’t know how to say it, white people, white girls in there, were all kinda being rude in there saying eww gross why would you keep that. And I was, I was just like ‘cause I’m Native, that’s what we do. And then umm she just stopped saying that. I don’t know if it sounds weird that we keep it. But that’s just something that we do.

Overall, passing on cultural traditions to their children and having their children become familiar with their heritage were important for the mothers in this study. Sharing in these cultural traditions seemed to be a way for their babies to be connected to the earth, their families, and to their mothers. It may also be that for the mothers sharing in the traditions themselves gave them a sense of connectedness with their families and community members and that they were envisioning this same level of sharing, learning, and connecting over cultural teaching with their babies.

**Summary of sense of future theme.** Overall, it seemed that reflecting on their future relationship with their baby elicited specific examples of how they envisioned spending time together and which desires they had for their relationship with their baby. There seemed to be an understanding that the elements they envisioned for their future relationship would support the growth of their bond over time. Since only two mothers shared potential concerns about the future, it may be that concerns were not at the forefront for the other mothers or that the interviews did not elicit additional concerns, even if they were present on their minds.

**Summary of Findings**

The five common themes that emerged from this study were Sense of Transformation, Emotional Experience of Bonding, Sense of Connection, Sense of Nurturance, and Sense of
In this study, mothers underwent a process of transformation that prepared them for and supported them in bonding with their baby. Making specific changes towards recovery from substance use allowed them to be more present and available for their relationship with their baby. This transformation seemed to go beyond preparatory changes all mothers make for becoming a mother, as it related to the context of the women’s lives in this study. Mothers also described an affective component of their bond that seemed important in terms of how they experienced bonding with their baby and which emotions came up for them during this process. It seemed that a mix of emotional reactions was most common in terms of describing what bonding felt like, including both positive and negative feelings. One emotion that seemed particularly strong was the love the mothers had for their baby. For some mothers, their love was not just an emotion experienced as part of bonding but love was synonymous with bonding for them. Another component of bonding with their baby was a sense of connection, which felt natural for the mothers and had a sense of permanence in that they felt that no one could take this connection away from them. It seemed that there was a uniqueness about the connection between a mother and her baby specifically, which had an onset during either pregnancy or the postpartum period. In addition to a sense of connection supporting the maternal-infant bond and being a part of it, some mothers also experienced their sense of connection with their baby as synonymous with bonding. Nurturance was another component of bonding which was described by the mothers in terms of taking care of their baby’s physical and emotional needs. This included carrying out instrumental caregiver duties, such as changing the baby’s diaper to learning how to soothe their baby. Many of the mothers described having learned how to calm their baby in a way no one else knew how to do. Thus, there was something special between the bond between mother and baby that could not be replicated elsewhere. This also seemed true for
feeding their baby, which was described as more meaningful than simply providing nutrition for their baby. Protecting their baby was an aspect of nurturance, which closely related to the mother’s own experiences of having felt unsafe while growing up. Bonding also including a component of future-directed thinking in that mothers were able to envision the type of relationship they hoped to have with their baby and the role they would play in their life. This shows their hope for their continuing relationship and their commitment to being their baby’s mother. For some women, this also meant including their baby in their cultural traditions.

Even though there were some differences between how bonding was experienced among the women, there were also many commonalities of this experience, with each component of bonding being endorsed in some way by all mothers in this study. One mother shared her feelings about this in the following way: “Everyone is obviously different, everyone is different in the world, but I think fully that the bond is the same, but maybe we all have that same feeling when the baby is there.”
Chapter 5: Discussion

The purpose of this study was to describe and understand the experience of maternal-infant bonding in mothers with mental health and substance use problems. To this end, the research question was the following: “How do mothers with substance use and mental health problems experience bonding with their infant?” Nine women who met inclusion criteria for this study completed in-depth, qualitative interviews to explore this question. Data analysis yielded five common themes that characterized the women’s lived experience of the phenomenon. These were Sense of Transformation, Emotional Experience of Bonding, Sense of Connection, Sense of Nurturance, and Sense of Future.

This chapter will provide a detailed discussion of the research findings and how they compare to, extend, or contradict existing research, while also providing an overview of unique contributions of this study’s research findings. This chapter further includes an overview of implications for practice and implications for future research and will conclude with a discussion of the strengths and limitations of the study.

What Have We Learned?

The current literature on bonding is quite diverse, and the term bonding is often confused with attachment, as there is not a clear, universal definition of maternal-infant bonding. Thus, the findings from this study further extend the existing literature on maternal-infant bonding by providing a unique perspective on the bonding experience in mothers with substance use and mental health problems.

In this study, mothers spoke about bonding with their baby, feeling passionate about this, and loving them deeply. Some were even surprised at how much they loved their baby and how connected they felt with them. However, bonding with their baby was not a simple process and
likely not as easy as for other mothers. Bonding for the mothers at Fir included a level of uneasiness and many unknowns, which likely would have also existed outside of this setting. Some of them had not been given custody yet of their baby, while those who had been given custody still seemed acutely aware that this was a fragile privilege that had been granted to them. It almost seemed that they would continue to feel uneasy about this until they were able to leave Fir with their baby. However, this is in comparison to likely having lost custody of their baby already if they would have not been at Fir. The mothers were also faced with many other unknowns, such as where they would be living post-Fir, how they would support themselves, what their relationship would look like with the father of their baby, whether they would get their other children back, who their support network would be, and whether they would be able to continue maintaining a substance-free lifestyle. Battling these questions appeared to weigh on the mother’s minds, as their own future and that of their baby seemed undecided. Thus, their experiences of bonding with their baby were best described as a mix of emotions that were reflective of the context of the women’s lives. In the following paragraphs, specific aspects of the context in which these women experienced the experience of bonding with their babies is explored in some detail, as it informs the overall discussion of what conclusions can be drawn from the findings.

Despite the barriers mothers faced to bond with their baby, they seemed hopeful and optimistic about their future together. This may be partly due to the structure and expectations offered by the Fir program, which provided an environment that supported them keeping their baby, believed in them as mothers, and expected them to learn parenting skills to be able to attend to their baby’s needs. This provided mothers an opportunity to be the primary caregiver of their baby, be held responsible for their baby’s well-being, and be seen as a capable mother.
For example, one mother felt that being able to parent her baby, see that she was doing a good job, and watch her baby being happy made her realize that she was “capable of good things” and a “good person.” It may be that for mothers in this study having the chance to practice parenting their baby and seeing that they were able to do this, increased their level of self-efficacy and empowerment as a parent. Some of the mothers may have tapped into this belief in their capacity to parent their baby when they described having learned how to take care of and soothe their baby in a way no one else knew how to. Additionally, feeling confident in their ability to parent their baby and being reassured of this by staff at Fir may have allowed the mothers to feel that it would be possible to keep their baby and continue to be a responsible, nurturing, and loving mother.

As will be detailed in subsequent sections, most of the findings of this study seemed positive in terms of the experience of maternal-infant bonding. Furthermore, even though women in this study experienced specific challenges related to their substance use and mental health problems, they talked about establishing a bonding relationship with their baby. This is unexpected given what the literature has documented on bonding problems in mothers with substance use and mental health problems. It seems that one possible explanation for this lies in the role that context played in this study. Thinking about bonding in terms of how context contributes to its experience may help deepen our understanding of this phenomenon and the way a shared experienced can be experienced in qualitatively different ways.

Specifically, the environment of Fir, as described in detail in the methodology chapter, seemed to greatly contribute to the mothers being encouraged to bond with their baby and having the opportunity to do so in a non-judgmental and safe space. Some of Fir’s specific program goals that may be related to this are to keep mothers and babies together as much as possible,
help mothers gain confidence with parenting as well as mother and infant interactions by teaching them parenting skill, and support them in gaining custody of their baby (B.C. Women’s Hospital and Health Centre, 2015). Therefore, the context of Fir and what it is able to offer mothers who go there may both support and enhance the maternal-infant bonding process, thus contributing to the more positive findings of bonding that mothers described in this study. However, the mothers themselves have to be credited with the success of bonding with their baby, but Fir likely supported them in working towards this bond.

Another context that likely contributed to the way mothers experienced bonding with their baby was their own life. For the mothers in this study, certain components of their bonding process were emphasized or expressed differently compared to what may be expected from mothers-in-general, as represented in the available literature. For example, for current participants the transformative piece of becoming a mother seemed closely connected to making changes to their lifestyle, substance use behaviours, housing, and expectations of living a stable and substance-free life. These changes were beyond the usual preparatory changes that new mothers may engage in. Many of the study mothers also commonly shared a focus on protection as part of nurturing their baby. This focus on protection seemed to be connected to the mothers’ own experiences of having felt unsafe in the past, thus hoping for a safer and more stable future for their baby. As already mentioned, the mothers also experienced bonding through a variety of emotions that each contributed to and impacted their bonding process in different ways. Lastly, the mothers shared a focus on continuing their mother-infant bond in the future, as part of their hope for a future connection. Imagining a sense of connection that continues over time may be especially important for the mothers in this study since their substance abuse problems
previously prevented them from keeping custody of their baby, and thus preventing them from seeing them grow.

The contextual elements as reviewed in this section, and shared by the women in this study, shaped the specificities of how the common experience of maternal-infant bonding was experienced by each woman. Thus, individual differences in the qualitative nature of maternal-infant bonding exist as part of the women’s lived experience of bonding, yet similarities across bonding experiences of mothers in this study and mothers in general show the universality of maternal-infant bonding.

**Situating the Findings within Previous Research**

**Sense of transformation.** All mothers in this study spoke about experiencing a sense of transformation as part of the bonding process. Specifically, many of the mothers spoke about being motivated by their baby to make changes, having a renewed focus, and feeling that they gained another chance at motherhood. This included their commitment to making changes to their lifestyle, such as working on reducing their substance use. This transformation allowed them to be present with, focused on, and be available for their baby; ultimately, they were able to prioritize bonding with their infant. These findings are in accordance with those from a study by Radcliffe (2011), who found that perinatal women who were using substances were engaging in recovery oriented behaviours as part of their transformation into motherhood. Creating opportunities for these mothers to make changes and work on their recovery was part of making “turning points” possible. Similarly, in this study, accessing the support of the Fir program and working towards recovery oriented behaviours allowed the mothers to create opportunities for change, leading to the mothers being more available and accessible to their babies. What may be
a unique feature of this study population is the transformative process the women went through, particularly the specific changes they noted as being part of this process.

In general, the transition to motherhood can be seen as a major developmental life event, which “involves moving from a known, current reality to an unknown, new reality” (Mercer, 2004, p. 226). In this sense, even mothers who were not first-time mothers in this study still underwent a process of change, moving from the known to the unknown. Additionally, for some mothers they may have not fully had the chance to experience a sense of transformation with their other children in the past due to their drug use. Ross (2012) and Young (2013) argued that the transition into motherhood starts during pregnancy for many women, with engaging in emotional preparation as well as healthy lifestyle choices for the well-being of their unborn child. Since mothers are encouraged to attend the Fir program during their pregnancy on an intermittent basis, it is possible that some of the mothers in this study had begun engaging in preparatory behaviours before childbirth, as part of their overall transformation and transition into becoming a mother.

Women in this study identified with the role of being a mother, reflecting that they felt they were “meant to be a mother” and that they felt “happiest as a mother.” This shows how powerful addiction can be in that it can take these women away from something that makes them their happiest. This part of the mother’s experience also strongly contradicts some of the assumptions that some people may have about this population, in that they erroneously see them as not loving their children, not wanting to be a mother, or being an unfit parent (Jeffery et al., 2013).

In a qualitative study by Sethi (1995) with postpartum mothers who did not experience substance or mental health problems, becoming a mother was connected to experiencing
transition, contradictions, tensions, and transformations. The transformations for women in Sethi’s study had to with the transformation of self and the redefining of the new self as a mother. Mothers in this study were also re-evaluating the role they wanted to play in their baby’s life, how they wanted to relate to their baby, and what needed to happen for them to be able to take on their role of a new mother to their baby.

Furthermore, in a review article of the process of becoming a mother in the general population, Mercer (2004) stated that the experience of a transformation of self into becoming a mother has been said to include the expansion of her self to incorporate a new identity and assume responsibility for her infant and her infant's future world. Additionally, both “commitment to and involvement in defining her new self” further support the establishment of a maternal identity, which is a continuous process over time (Mercer, 2004, p. 226). This process also occurs with each new child, “with no transference of a maternal identity from one child to another” (Mercer, 2004, p. 227). Drawing from the findings of the transition into motherhood as experienced in the general population, it seems that developing a maternal identity is part of the transitioning process into motherhood and may facilitate the maternal-infant bond process. The existing literature speaks little to the idea of a transformative piece being an important part of the bonding process; nevertheless, transformation seems to be connected to becoming a mother as noted in the literature of mothers in the general population, and as found among the women in this study. It may be then that the changes that occur through the transformative process and identifying as a mother is part of the transition to parenthood, and ultimately enables mothers to be available and ready for bonding with their baby.

**Emotional experience of bonding.** All mothers in this study experienced several emotions as part of and in response to bonding with their baby. This finding is in agreement
with two recent concept analyses that have been conducted on the concept of maternal-infant bonding, which found that it includes an affective component (Altaweli & Roberts, 2010) and can most consistently be described in terms of this specific component (Bicking Kinsey & Hupcey, 2013).

Love was one of the emotions endorsed by all mothers in this study, who did not hesitate in expressing their love for their baby and with some feeling surprised at how much they loved their baby. Wittkowski et al. (2007) and van Bussel et al. (2010) identified love as one of, if not the key component of the maternal-infant bond in their studies of postpartum mothers. In contrast to findings in a study which examined bonding in a sample of mothers with postpartum depression (Chalmers & Chalmers, 1986), mothers in this study seemed to be able to love their baby and express this in the interviews, despite experiencing both mental illness and substance abuse. Furthermore, mothers in this study did not experience a “catastrophic failure to love” (p. 175), an explanation put forth by Kumar (1997) who found that postpartum mothers with mental health problems experienced a range of negative feelings towards their infant, including lack of affection, hate, rejection, or neglect.

Wittkowski et al. (2007) further stipulated that positive emotions in general may greatly contribute to the bonding process among mothers in the general population. This was also found in this study, with mothers speaking about experiencing other positive emotions such as happiness and pride when thinking about their bond with their baby. Some women described being a mother as the happiest time in their life, while others shared how proud they were to be their baby’s mothers and how proud they were of their baby.

In addition to the positive emotions mothers in this study named as part of their bonding experience with their baby, some of them also experienced feelings of fear, ambivalence, and
guilt and shame. These mothers all spoke about feeling bonded with their baby as well, but for some they felt that their negative emotions hindered their bonding experience to a certain extent. This seems common among findings from other studies. For example, in a study by Gilchrist et al. (2012), one of the barriers to treatment for women with substance use problems and depression was their fear of childcare protection services. This fear was also experienced by several mothers in this study, leaving them to worry whether they would be able to keep custody of their baby. Some of the women recalled instances when this fear kept them from wanting to become too close to their babies, in case they would not be able to keep them. It seems that, overall, these mothers were able to negotiate between both their feelings of love for their baby and fear of losing their baby in a way that still allowed them to bond.

Another mother in this study had talked about her fear of not being able to bond with her baby, as she was used to having girls and not boys, and being surprised at how bonded she felt with her baby once he was born. A similar finding was reported in a case study of a pregnant young mother by Sevil and Çoban (2005), who concluded that emotional separation may occur as a result of having a baby of the opposite sex than expected or hoped for, thus impacting the maternal-infant bond.

One woman in this study also reported feeling ambivalent about being a mother, as she did not have a planned pregnancy and did not intend to stop using substances if it wouldn’t have been for her baby. At the time of the interview she was undecided whether to keep her baby. This mother also reported feeling love for her baby and bonded with her baby, but recalled worrying that she did not want to get too bonded, in case she would give her baby up for adoption. Without generalizing to other mothers’ bonding experience, it is still helpful to examine the available literature in terms of emotions that only one participant endorsed. The
experience of ambivalence seems to be confirmed in the existing literature, with some mothers distancing themselves from their baby if they did not plan to become pregnant, as reported in a review of postpartum women with psychiatric disorders (Brockington, 2004). However, the finding that the mother in this study felt both ambivalent and yet bonded to her baby is in contrast to a review by Klier and Muzik (2004), which suggests that ambivalence in the mother may be a sign of a bonding disorder and result in a delay or loss in maternal response.

Another mother experienced guilt and shame about having used substances prior to and during her pregnancy. Despite this, she also reported feeling bonded to her baby. Unlike findings from a study of mothers who used substances during their pregnancy (Armstrong, 1992), this mother did not seem to redirect feelings of anger with others towards her baby as a result of her feelings of guilt and shame. Interestingly, Bliszta et al. (2010) found that in women with postpartum depression, their shame and own negative attitudes towards acknowledging their struggle were barriers to accessing care, whereas in this study the mother who experienced a sense of shame and guilt seemed to find talking to others about her feelings helpful. In fact, she described finding relief in discussing her feelings with healthcare providers around her who were able to reassure her that she was a good mother despite her fears.

It seems that certain emotions facilitate, while others hinder, the maternal-infant bond, but experiencing negative emotions, at least in this study, did not prevent these mothers from also feeling bonded to their baby. Some research has found similar complexities in the emotions experienced by perinatal women. For example, Scheff (1997) found that shame and distrust may negatively impact the maternal-infant bond, while pride and trust seem positively connected to this bond. In a study by Söderström (2012), women with substance use problems experienced feelings of ambivalence and guilt, but also hope for change that motherhood may bring for them.
This seemed to be true for women in this study as well, that even when experiencing ambivalence, fear, guilt or shame, they also experienced hope for the future and hope for their relationship with their baby. Limited generalizations can be made specifically from feelings of guilt and shame and ambivalence as part of the bonding experience in mothers with mental health and substance use problems. However, it seems that based on the literature on bonding in this population, endorsement of these emotions may be likely among other mothers.

**Sense of connection.** In this study, the mothers described having an unbreakable connection with their baby and a natural sense of closeness. They also felt that spending time with their baby was conducive to feeling more connected and bonded and that bonding was connected to sensory experiences.

This experience of closeness and a unique connection between mother and child was supported by the definition of maternal-infant bonding provided by Altaweli and Roberts (2010). They noted the following: “Maternal-infant bonding can be defined as the special, close relationship between the mother and her child that occurs during the sensitive period. This is a unique experience which ties the mother to her child” (p. 558). Elements that they found to further the bonding process included having the baby close to the mother, which women in this study not only had the opportunity to do as they had their baby with them in their own room, but they also described spending lots of time together, during which they would often hold their baby.

Research by Klaus and Kennell (1976), and others have suggested that bonding was a natural process that has a biological basis, while other researchers have either questioned this or rejected this finding (Bicking Kinsey & Hupcey, 2013). In this study, mothers described their bond as a natural closeness between them and their baby and stated that they didn’t know how else to explain it except that it felt natural. It may be that the biological basis, if there is some
support for a biological element, is not something that is in conscious awareness, but the result of it is feeling more bonded to their baby. This would show that bonding is powerful and has the ability to break through barriers such as substance use and ambivalence about becoming a mother, for those whose lifestyles aren’t traditionally seen as compatible with parenting.

Bowlby believed that mothers are in a privileged role and that primary bonding will occur only with the mother (Winnicott, 1971). Women have also traditionally filled the role of primary caregiver and continue to do so, while now also pursuing education and career goals. Thus, it may be that the unbreakable connection and natural closeness mothers described was another way of understanding their role in that their ability to connect to their baby was unique compared to others. For example, some mothers described that they felt they knew how to soothe and calm their baby in a way that no one else did. They also seemed to take pride in the sense that they were their baby’s mother and felt strongly about their emotional connection continuing with their baby, even if they would not be with their baby.

Also related to women’s sense of connection with their baby were their reflections on when they first felt bonded with their baby and what facilitated this process. It seemed that pregnancy was a time when the baby was first felt and likely became more tangible as a growing baby inside their body as a result. For some mothers, this is when they first felt bonded to their baby. For other mothers, they noticed a change in feelings towards their babies, which they labelled as love and excitement, but not bonding. For them, being able to see and hold their baby once it was born was a more powerful experience that elicited feelings of being bonded with their baby. It seems then that sensory experiences of holding, seeing, and touching were connected with the initiation of feeling bonded during the perinatal period. These are similar to what was described under Sense of Nurturance for mothers in this study. The difference appears
to be that engaging in these sensory experiences can mark the start of the bonding process, while also being an integral part of maintaining it through nurturance. It is likely that with the continuation of engaging in these sensory experiences, the maternal-infant bond is both maintained and grows deeper over time.

In a concept-analysis on attachment (not bonding), sensory experiences were found to be a part of proximity seeking behaviours, which were one of the identified attributes of parent-infant attachment (Goulet, Bell, St-Cyr Tribble, Paul, & Lang, 1998). Specifically, touching, holding, and gazing were recognized as being important. In this study, these three elements were also shared as important in triggering the bonding process. It may be that sensory experiences contribute both to attachment and bonding, but that they are one of the ways mothers start feeling bonded with their baby.

Kennell and McGrath (2005) described a series of experiences as contributing to mothers feeling love for their baby, but did not label these sensory experiences. Skin-to-skin touch, seeing their baby, and having the baby start to locate their mother’s breast were related to a release of oxytocin in the mother, thus creating pleasurable maternal feelings. In this sense, sensory experiences may be another means of experiencing some level of biological changes, which are then translated into and felt as bonding.

**Sense of nurturance.** In this study, all mothers described attending to their baby’s needs by nurturing them physically and emotionally when talking about bonding with their baby. Some mothers also spoke about wanting to protect their baby as part of nurturance. Much of the existing literature on maternal-infant bonding states that nurturance is a part of the bonding process, including behaviours such as looking after the baby, giving the baby attention, cuddling and holding, as well as breastfeeding (Altaweli & Roberts, 2010; Klaus & Kennell, 1976).
However, there seems to be a lack of clarity on which specific behaviours constitute maternal-infant bonding and whether these behaviours are indeed unique to this phenomenon, as described in the concept-analysis of bonding by Bicking Kinsey and Hupcey (2013).

Dating back to 1957, Winnicott first documented that mothers tended to be preoccupied with identifying their children’s needs and then attending to these needs. In this study, many of the mothers spoke about soothing, calming, holding, and taking care of their baby as being a part of their bond. They also described eye contact between them and their baby, which often occurred during feedings, as well as knowing each other’s smell, as important. Additionally, during several of the interviews, mothers demonstrated the bonding skills that they verbalized, including holding their baby and making eye contact. These were also ideas discussed in a study of the relationship between oxytocin production and bonding in the general population by Feldman et al. (2011) and a review of maternal-infant bonding by Young (2013). Both papers stated that skin to skin touch, eye contact, and familiarity with the mother’s smell all facilitated the bonding process (Feldman et al. 2011; Young, 2013).

Many of the mothers talked about finding breastfeeding an important part of bonding with their baby. Those who were not able to breastfeed their baby still stated that feeding times were part of their bonding process with their baby, but they also felt disappointed and perceived this as missing out. Bowlby also believed that bonding would occur through the shared act of nursing (Winnicott, 1971). Research has shown that breastfeeding likely improves the emotional bond between the mother and her infant, based on the physical contact, interaction, and affection that occurs during feeding times (Kim et al., 2011). These findings were based on a study that examined the relationship between breastfeeding and response to infant cues, as suggestive of maternal-infant bonding, among mothers in the general population. However, similar findings
have been reported by studies that examined neurobiological changes that occur with touch and
the start of breastfeeding in animals (Insel, 1992, 1997; Neumann, 2003). Even though the
mechanism for how breastfeeding specifically supports maternal-infant bonding remains unclear,
it seems that a mother who finds another means to feed her baby still feels bonded, as seen in this
study.

In addition to taking care of their baby’s physical and emotional needs, some mothers in
this study also spoke about wanting to protect their baby from harm. This seems consistent both
with the definition of nurturance and existing research on maternal-infant bonding. Oxford
Dictionary defines nurture as “care for and protect (someone or something) while they are
growing” (Nurture, n.d.). In this sense, mothers care for and protect their infant. Maternal-infant
bonding has also been described as the mother’s concerns and actions about the baby’s safety
and general well-being by the authors who originally described bonding behaviours among
mothers and popularized the term maternal-infant bonding (Kennell, Trause, & Klaus, 1975;
Klaus & Kennell, 1976; Winnicott, 1957).

Drawing from developmental psychology, Erikson (1963) hypothesized that an infant’s
ability to trust and feel secure were both important for their healthy development throughout life.
Similarly, drawing from the attachment literature, Bowlby (1977) also postulated that a maternal-
infant attachment becomes a safe piloting point for the child to explore, while returning when
needed to the person to which they feel attached. Young (2013) also stated that the maternal-
infant bond can serve as a protection for the child “as they are dealing with life and their
emotions” (p. 11). This research seems consistent with the findings of this study, as mothers
spoke about wanting to protect their baby from harm and hoped that their child would turn to
them in the future in times of need, as they perceived this to be the safest option. Lastly, with
mothers often being described as responsible for feeding, protecting, and nurturing their baby (Mäntymaa et al., 2006) and concerned about the safety and well-being of the infant (Figueiredo, Costa, Pacheco, & Pais, 2009), it is not surprising that mothers in this study also felt responsible for the safety and protection of their baby.

In contrast to existing research, the mother’s motivation to protect their baby seemed specific to their own experiences of having felt unsafe, compared to a general sense of wanting to nurture and protect their baby as part of the bonding process. The mothers in this study spoke of a desire to do their best to make sure that their baby would not experience the same hurt or struggles in life that they had gone through. Likely these mothers were motivated to protect their baby both as a result of their own experiences of having felt unsafe and as part of wanting to nurture their baby, which included an element of protection. Thus, it seems that mothers in general may also wish to protect their baby, but that this was more pronounced for mothers in this study based on their own backgrounds. Therefore, the context of their lives mattered in how they felt bonded to their baby and which elements of nurturance were most important to them and why.

**Sense of future.** All of the mothers in this study envisioned spending time with their child in the future and spoke about seeing their bond continue to grow with time. Some of these mothers also gave examples of wanting to share cultural traditions with their children.

This finding is in line with Klaus et al.’s (1995) belief that maternal bonding develops over time and is not completely established at birth. Again, drawing from the attachment literature, Bowlby (1977) also believed that early bonding experiences can support the development of a strong attachment and support future emotional, social, and developmental milestones. Thus it is not surprising that the mothers spoke about wanting to continue their
relationship with their children in the future by being an active part in their lives and spending time together as a way of maintaining and further growing their relationship. The literature does not seem to specifically acknowledge mothers’ desire for a continuing relationship as part of the bonding process, but what is acknowledged is recognition of the bond growing over time. It may be that feeling bonded to their baby allowed mothers to feel hopeful about continuing to make positive changes in their lives, while being an active participant in their child’s life. Additionally, as Young (2013) noted, the existing maternal-infant bond may be the “ongoing foundation” (p. 11) in their child’s life for future physical, psychological, and emotional development.

In terms of carrying on cultural traditions, this may be an example of a belief system inherent to the mother’s culture where connection with community is valued, and is extended to valuing this in the mother-baby relationship. For example, for Aboriginal mothers carrying on cultural traditions may be an important part of bonding with their baby and connecting them and their baby to the rest of their community. In support of this finding, Rothbaum et al. (2000) reviewed the relationship between culture and attachment and Hess et al. (1980) examined differences in maternal expectations of infant’s specific developmental skills based on cultural background. Thus, it seems that culture may also dictate what is valued as being important to the bonding process. For mothers in this study who identified as Aboriginal, it may have been particularly important for them to share their cultural traditions as part of their bonding process with their baby.

**Summary of conclusions.** In summary, key conclusions that came out of this research were as follows. Maternal-infant bonding for mothers with mental health and substance use problems was experienced as a journey of transformations from their previous lifestyle to one that allowed them to become more available for bonding with their baby. As part of bonding
with their baby, they experienced a variety of emotions in response to the closeness they felt with their baby, but also the ongoing fears and concerns they were facing. Describing their bond in terms of the word love showed the deep affection and passion they had for their baby. Furthermore, bonding was experienced as a special connection between the mother and child, which mothers labelled as feeling natural to them. Being able to practice parenting their baby and providing them with emotional and physical nurturance became an essential element of how the women bonded with their baby. Wanting to protect their baby from harm was an example of how their past experiences shaped how they envisioned being a mother to their baby. Lastly, the mothers in this study also believed in the continuity of and the enduring nature of their relationship with their baby as a reflection of the bond they had developed, as well as the hope they held for their future bond.

Additionally, it seems that this population of women is distinctive in that they experienced an increased vulnerability relative to other mothers, which was connected to factors such as past traumas, substance use and mental health problems, and systemic barriers in their lives. It also seems that our current clinical understanding of this population remains limited and is hindered by a problem-focused lens of the existing literature. Thus, it is pertinent that healthcare providers especially gain a more complex understanding of maternal-infant bonding in mothers with substance use and mental health problems, as showcased in this study. This could lead to more appropriate supports for these mothers and a decrease in the stigma that often surrounds them. Furthermore, the context of the women’s lives and the supports provided by the Fir program played a particular role in how women in this study experienced bonding with their baby. They were provided with the opportunity to bond with their baby in a safe, non-judgmental environment and all described being in a place in their life where they felt ready to
make changes to their lifestyle and focus on being a mother to their baby. It seemed that a supportive environment was particularly important in how bonding was experienced by these mothers. It was also observed that there were non-verbal aspects of the bonding phenomenon that were noted during the interviews (e.g. watching mothers hold their baby, talk to them, etc.) and differences in how mothers expressed their experience of bonding with their baby. Thus, though the findings of this study showcased a complex understanding of maternal-infant bonding in mothers with substance use and mental health problems, there may be some level of limitation in relying solely on verbal accounts of their experience of bonding.

**Implications for Clinical Practice**

The relevance of this study’s findings for clinical practice are several-fold, and include suggestions for working directly with clients and for educating healthcare professionals working with this population.

All mothers who participated in this study reported that they enjoyed having a chance to reflect on their relationship with their baby and their maternal-infant bonding process. Many of the mothers noted that it provided them with an opportunity to realize how much they loved their baby, reminded them of the reasons why they had decided to make changes to their lifestyle, and provided hope for their future. One mother was able to express her thoughts about the benefits of being able to reflect on bonding with her baby as follows:

It was good, it’s nice to like think about it ‘cause again like I don’t sit and think “Oh we have such a bond” and this and that so it’s cool when I stop and think about it, like it’s really nice to think that you know some parents don’t have that with their kids, and it’s just not there and I’m really lucky to have that and umm it’s really nice, I’m really happy that I have such a nice bond with my son and that it’s just a natural thing with us, we just
love each other so much and I’m lucky, really lucky to have of him and have the bond that I have with him and the close- closeness that we have together. It’s beautiful, yeah I’m happy.

Another mother also commented that “when you put words on it, you actually notice that there’s um, a connection like that.” Providing mothers with a chance to reflect on their relationship with their baby and an opportunity to talk about bonding with their infant may be beneficial. This may also be helpful for women who are experiencing challenges in regards to bonding with their baby, as it would allow them a safe outlet to process these feelings and understand them better. One way mothers would be able to share their experiences in a safe space would be to provide access to counselling resources for women with substance abuse and mental illness. Given the high prevalence of trauma, loss, and troubling experiences among the mothers in this study, intertwined with the many systemic barriers they face in their daily lives, there seems to be a need for both gender-responsive and trauma-informed counselling. Providing access to counselling resources may allow these mothers to acknowledge the contribution of trauma in their lives, learn about the role of substance use and mental health problems in their experiences, and empower them in making choices towards a healthier life. These changes likely would support mothers in being able to bond with their baby and continue to invest in the growth of their bond over time.

Given the unique nature of the Fir program and the findings from this study, it seems that providing a supportive, non-judgemental, and safe space for mothers with substance abuse and mental illness to bond with their baby in the perinatal period is crucial. Many of the mothers spoke about having the time to focus on their bond with their baby, away from duties and responsibilities of regular life. They also appreciated being able to do so in a safe and non-
judgmental environment, where they could be directly involved in the care of their baby and in this way be empowered as a parent. The environment seemed to play a key role in facilitating the maternal-infant bonding process of these mothers. As this is a unique program and the first of its kind in Canada, likely women with substance abuse and mental illness in other cities and provinces, even other countries, do not have access to this type of program. Thus, one recommendation for care providers would be to try to provide as many elements of this program as possible which would mimic a similar setting. In particular, using a non-judgmental and supportive approach would be one specific suggestion. Another suggestion is to provide an opportunity for mother and baby to bond for as long as possible, versus taking a punitive approach and separating mother and baby which, as heard in the experiences of women in this study, can harm both the mother and child. Likely, this would be the most difficult recommendation to implement clinically, due to the uniqueness of the Fir program and resources that would be required to provide a similar level of support, but it also seems the most important.

Another recommendation would be to educate healthcare professionals who work with perinatal women about maternal-infant bonding. This would be especially important for those who may come into contact with or work with women with substance use and mental health problems. Maternal-infant bonding is often confused with attachment and there is lack of clarity as to which specific behaviours are connected to bonding. Providing education for healthcare professionals about the most common emotions and behaviours connected with bonding, would support professionals in knowing how best to support women in their bonding relationship with their baby. In light of these suggestions it is also important to keep in mind that the bonding process is impacted by many external factors including poverty and social isolation, for which we cannot fault the mother when bonding is interrupted due to these concerns (Eyer, 1994).
Educating healthcare professionals about the varied experiences of maternal-infant bonding among mothers with substance use and mental health problems would help counter judgments that these mothers are not able to bond. This varied experience includes mixed emotions as part of the bonding experience, which was reported by many mothers in this study. As Porter and Porter (2004) argued, using a punitive approach when working with mothers with substance use and/or mental health problems decreases the chance that they will reach out for prenatal care and support for themselves (e.g. substance use treatment) out of fear. In this sense, educating healthcare professionals to gain a more complex understanding about the experience of maternal-infant bonding in mothers with substance use and mental health problems could help counter stigma that is often experienced by this marginalized population.

**Suggestions for Future Research**

Lessons learned and findings from this study suggest several further areas for future research. Since there still is no universal definition of bonding, it would be important to conduct more research on this to come closer to creating such a definition. The concept analysis that was conducted by Bicking Kinsey and Hupcey (2013) seems most helpful in providing a possible definition of maternal-infant bonding, yet the authors encouraged future research to further develop this concept. It is still unclear what helps to form and maintain the maternal-infant bond or how its establishment is marked. Developing an empirically validated definition of bonding would help future research be able to study bonding more effectively and outcome research to be more streamlined by differentiating between bonding and related concepts. In the future, this could then better inform clinical interventions.

Further research may also look at the impact of context on the lived experience of maternal-infant bonding among other sub-groups of women and in different cultural groups. For
example, in traditional Aboriginal culture, parenting is seen more as a group approach, thus maternal-infant bonding may look qualitatively different, as it would be more of a shared experience. Better understanding how context impacts the bonding experience in other populations would further the ability of healthcare professionals to support mothers matched to how they experienced bonding.

Since this research points to the idea that the context of the supports provided at the Fir program are unique in contributing to the maternal-infant bonding experience of mothers with mental health and substance use problems, it is worth further understanding which specific aspects of this support are most helpful. It seems that teaching women parenting skills and providing a space for them to care for their baby likely facilitates the bonding relationship, but it may be that the non-judgemental attitude of the staff contributes greatly to the uptake of their services, sense of comfort for women, and feeling mattered and respected in their parenting ability.

Lastly, another research direction would be to try to come to a better understanding of the bonding process through other means of capturing this experience, particularly through non-verbal accounts. Participants were able to express their experience of bonding in this study, which is in line with one of the assumptions of phenomenology, which is that human experience makes sense to those who live it and that human experience can be consciously expressed (Dukes, 1984). However, there may have been parts of the women’s experience that were not as readily expressed for a variety of reasons. For example, talking about shame or ambivalence likely was not easy for the women. Words have the power to describe an experience we may otherwise not know much about, but in their own way they can also be limiting as verbal methodologies privilege verbal abilities and may not capture non-verbal aspects of a
phenomenon. In this way, our understanding of a phenomenon is limited by what is shared through a verbal context. Having a means of expressing all aspects of an experience may add another layer of depth to the understanding of this experience. One option would be to provide mothers with an artistic means of expressing their experience of bonding. This could be especially important as it would provide a medium and opportunity for mothers to express and convey their experience of bonding without having to use language to potentially limit our understanding of the experience of bonding.

**Strengths and Limitations**

This research study has several strengths and limitations which will be discussed. The goal of this study was to explore the lived experience of maternal-infant bonding in women with both substance use and mental health problems.

**Strengths.** Few studies allow enrollment of individuals who experience both substance use and mental health problems, despite their common co-occurrence in the general population. This study sought out to enroll women who experienced problems both with substance use and mental health to acknowledge this common co-occurrence and as this is an often overlooked population in research. Carrying out this research with women with substance use and mental health problems enabled findings to show the importance of context in shaping their lived experience of maternal-infant bonding.

The literature on the experience of bonding in mothers with substance use and mental health problems is limited. Furthermore, their experience of bonding is often assumed to be impaired and fraught with struggles, or even absent completely from their experience of mothering. Thus, the mother’s voice in explaining her own experience is often not privileged, resulting in her experience becoming externalized as she is othered. This study gave mothers an
opportunity to express what maternal-infant bonding means to them, in their own words. Furthermore, it gave mothers who are part of a disenfranchised population and a hidden part of our society a voice to talk about their bonding experience with their infant.

In order to provide mothers with the possibility to talk about negative and positive bonding experiences, they were first asked about their experience of their relationship with their baby without the use of the word bonding. This allowed mothers to use wording that fit best for them to describe their experience. Six of the nine mothers used the words bond or bonding on their own in the interviews, mostly when asked how they would describe their relationship with their baby so far and which words they would use to describe this relationship. One mother introduced the word bond when asked what it has been like to be a mother to her baby so far. All mothers agreed that maternal-infant bonding was one possible way of describing their experience.

Lastly, another strength of this research lies in its research methodology. Using an interpretivist/constructivist paradigm as a philosophical and conceptual framework to guide the study allowed me to value each mother’s expertise in terms of their lived experience, while being able to take an active part in the co-creation of the meaning of maternal-infant bonding and developing a shared understanding of this phenomenon. As one measure of establishing credibility, I also engaged in an ongoing reflexive process, as a way to examine my beliefs, thoughts, and decisions, particularly throughout data collection and analysis of findings. Having my research also informed by feminist methodology allowed me to pay particular attention to establishing collaborative and non-exploitative relationships with a population who is often marginalized and stigmatized and not sought out for their knowledge. Accessing their voices contributed to being able to acknowledge them as experts in their own life and share their experience of bonding, which for them was connected to the contexts of their lives.
**Limitations.** There are also several limitations of this study. For example, women who participated in this research self-selected to be a part of this study. It is possible that they had already done some reflection on their relationship with their baby, may have felt more positive about their relationship with their baby, may also have been in a better position to get custody of their baby, and/or may have just had more stability in their lives where they were able to meet for two research interviews and talk about their experience thus far. Thus, the experience of bonding may have looked different if this study would have included other women who were not able to gain custody of their baby or had chosen to give their baby up for adoption. Furthermore, even though every effort was made to be non-judgmental, reassure mothers of confidentiality, and ask questions in an unstructured and open-ended way, some mothers may have felt pressure to respond to questions in a way that seemed more socially acceptable or would be perceived as more appropriate.

Another possible limitation in terms of drawing conclusions from the research findings is the fact that eight of the nine mothers had other children and seven of these mothers no longer had custody of their other children. These mothers may have been at a different point in their lives where they were able to make specific changes to their substance abuse behaviours and felt ready to do so. Several of the mothers spoke about not having felt ready to prioritize being a mother when they were younger, but wanting to make this change now. Thus, it is likely that specific elements of the experience of maternal-infant bonding were highlighted now based on the readiness of this group of women to make changes to their lifestyles, and that other elements were not as pronounced (e.g. uncertainty, ambivalence, etc.).

Another limitation was that, even though this study recruited mothers who self-identified both with substance abuse and mental illness, most of them seemed to speak more about their
substance use and saw this more as a barrier to bonding with their child than anything else. Part of this is likely based on the setting of recruitment, which was a hospital program specifically for mothers with substance abuse. Results may have been different if the setting would have been from a similar program focused mainly on the challenges of mental illness or focused towards supporting treatment for both.

Additionally, even though the context of the women’s lives and the setting recruitment uniquely contributed to the findings of this study, it is important to acknowledge the limitations of the findings as a result. The women in this study were in an environment that encouraged them to bond with their babies through teaching parenting skills, supporting mothers in making positive changes, and rooming both mother and baby in the same room. Fir operates on the idea that “for women whose lives are complicated by trauma, disenfranchisement, and subsequent problematic substance use, facilitating prenatal maternal/fetal bonding is critical to improving outcomes” (B.C. Women’s Hospital and Health Centre Foundation, 2013). It is unclear how much this mandate contributed to and impacted the women’s experiences of bonding and their ability to put this experience into words to convey within the interviews, but it likely supported women (as intended) in their bonding processes with their baby.

These limitations speak to the limited representativeness of this sample, as findings and conclusions are a reflection of the experience of maternal-infant bonding in mothers with substance use and mental health problems in a supportive environment. Thus, both the self-selection of the women to participate in this study and setting of recruitment speak to the context to which findings can be generalized.

Lastly, as previously mentioned, since verbal methodologies privilege verbal abilities in describing an experience and are limited to verbal aspects of a phenomenon, the understanding
of maternal-infant bonding in this population may further be explained by using alternative methods for capturing information about the phenomenon of interest. Future research could utilize a combination of methods to capture varied aspects of maternal-infant bonding.

**Conclusion**

In conclusion, this study was conducted to understand the experience of maternal-infant bonding in mothers with mental health and substance use problems. The aim was to understand the experience of bonding and the meanings they ascribed to this experience from the mother’s perspective. Valuable insights into how mother-infant bonding is experienced, in particular for women with mental health and substance use problems, were obtained through in-depth interviews. Recognizing the challenges this sub-group of women face as mothers, and the role that maternal-infant bonding plays in both the mother’s and child’s well-being, this study sought to advance our knowledge of how bonding was experienced in this population. Through pursuing an understanding of the women’s lived experience of maternal-infant bonding and the meanings they made of this experience, the existing knowledge of this phenomenon in this group of women was broadened. Furthermore, women’s perspectives were valued throughout this research and they were provided with a voice, with the intent that they would feel listened to and acknowledged, and not silenced.

Findings from this research made unique contributions to the literature on maternal-infant bonding in a marginalized and often stigmatized group of women. This included both expected and unexpected findings, which further our understanding of the phenomenon of interest in mothers with mental health and substance use problems. Being able to see the similarities in the mother’s bonding experience to other mothers in the general population provides recognition and acknowledgment of their commitment to and love felt for their baby and provides an alternative
perspective to seeing these mothers as unable and unfit to bond. However, recognizing the unique impact of the women’s lives on their bonding experience, as found in this research, allows us to more fully understand the qualitatively different ways mothers may experience bonding with their infant. Highlighting the significance of context of the women’s lives in how maternal-infant bonding was experienced by them, as well as the importance of supportive and non-judgmental environments during this time, provide suggestions and implications both for clinical practice and future research.
References


Mauthner, N. S., Parry, O., & Backett-Milburn, K. (1998). The data are out there, or are they? Implications for archiving and revisiting qualitative data. *Sociology, 32*(4), 733-745. doi:10.1017/S0038038598000200


doi:10.1177/0261018307087990

Reiners, G. M. (2012). Understanding the differences between Husserl’s (descriptive) and Heidegger’s (interpretive) phenomenological research. *Journal of Nursing & Care, 1*(5), 1-3. doi:10.4172/2167-1168.1000119


In J. A. Smith, R. Harre, & L. Van Langenhove (Eds.), Rethinking psychology (pp. 55-69). London, UK: Sage.


problems. *Child: Care, Health and Development, 33*(6), 794-803. doi:10.1111/j.1365-2214.2007.00739.x


Appendix A: Poster Advertisement
Participant Recruitment Poster Advertisement

HOW DO NEW MOTHERS RELATE TO THEIR BABIES?

We are looking for women who:
- Are 19 years of age or older
- Gave birth to their child in the last six months
- Self-identify as having had or currently experiencing problems with both substance use and mood/emotional difficulties interfering with their life
- Are interested in sharing their experiences of the mother-baby relationship

If you are currently pregnant and interested in finding out how you can participate after your child's delivery, you can contact us at the number or e-mail below.

What happens if you participate?
We will meet for two interviews (45-75 mins each) within the first six months after childbirth during which you will be asked questions about your early experience with your infant. By sharing your experience you may be able to help other women, as well as healthcare professionals working with new mothers. You will receive a $10.00 gift card to Safeway or Starbucks as a thank you for participating in each interview (for a total of $20 for both interviews). All information will be kept confidential except for some limitations which we will discuss with you. Your treatment at B.C. Women's Hospital will not be impacted by your decision to take part in this study.

Who is conducting this study?
This study is being conducted as a part of a graduate thesis for Jasmin Abizadeh, a current Masters student in the Counselling Psychology Program at the University of British Columbia. This research is being supervised by Dr. Ruth Eavekamp, a Faculty member in the Department of Counselling Psychology at the University of British Columbia, and Jill Mahy, Program Manager, Fir Square, at B.C. Women’s Hospital.

How can you participate in this study?
If you are interested in finding out more, you can contact Jasmin via phone or e-mail.

Version 1, September 21, 2014
Appendix B: Consent Form

THE UNIVERSITY OF BRITISH COLUMBIA

Department of Educational and Counselling, Psychology, and Special Education
The University of British Columbia, Faculty of Education
2125 Main Mall
Vancouver, BC V6T 1Z4 Canada
Tel. 604.822.0242 Fax. 604.822.3302
www.ecps.educ.ubc.ca

Participant Consent Form

Understanding the Lived Experience of Infant Bonding in Mothers with Concurrent Mental Health and Substance Use Problems

I. STUDY TEAM

Principal Investigators: Dr. Beth Haverkamp (UBC)
Department of Educational and Counselling Psychology, and Special Education, Faculty of Education, University of British Columbia

Jill Mahy (B.C. Women’s Hospital)
Program Manager, Fir Square Combined Care Unit
B.C. Women’s Hospital

Co-Investigator: Jasmin Abizadeh, B.A.
Department of Educational and Counselling Psychology, and Special Education, Faculty of Education, University of British Columbia

This study is being conducted as part of a graduate degree for Jasmin Abizadeh, B.A., a current Master’s student in the Department of Counselling Psychology, and Special Education at the University of British Columbia. Dr. Beth Haverkamp is a faculty member in the Department of Educational and Counselling Psychology, and Special Education, and is supervising this research.

After the completion of this research, it will be submitted in the format of a thesis to the Department of Counselling Psychology, and Special Education and will become a public document. Findings will be presented at psychological conferences and submitted for publication in a scientific journal.
II. SPONSOR

Who is funding this study?
The study is being funded in part by Intersections of Mental Health Perspectives in Addictions Research Training (IMPART), which is a Strategic Training Initiative in Health Research funded by the Canadian Institute of Health Research (CIHR). IMPART also has partnerships with the British Columbia Centre of Excellence for Women’s Health, the University of British Columbia, and the B.C. Women’s Hospital and Health Centre.

III. VOLUNTARY PARTICIPATION

Is it required to participate in this study?
Your participation in this research is entirely voluntary, so it is up to you to decide whether or not to take part in this study. Your treatment and access to services at B.C. Women’s Hospital will not be affected based on your participation in this research. Before you decide, it is important for you to understand what the research involves. You have as much time as you need to decide whether to participate in this study or not. We can re-schedule this meeting or you can contact the Co-Investigator at a later time-point when you feel ready to sign the consent form. This consent form will tell you about the study, why the research is being done, what will happen to you during the study, and the possible benefits, risks, and discomforts.

If you wish to participate, you will be asked to sign this form. If you do decide to take part in this study, you are still free to withdraw at any time and without giving any reasons for your decision.

If you do not wish to participate, you do not have to provide any reason for your decision not to participate nor will you lose the benefit of any medical care to which you are entitled or are presently receiving.

Please take time to read the following information carefully and to discuss it with your family, friends, or healthcare professional if you wish, and before you decide.

IV. INVITATION AND STUDY PURPOSE

Why are we doing this study?
You are being invited take part in this research study to share your personal experience of the mother-baby relationship and tell us what this process has been like for you. We want to learn more about the process of mother-infant bonding and particularly what this process is like for women who self-identify as having had (or currently have) problems both with mental health and substance use. Mental health problems may include mood disturbances and emotional difficulties that are interfering with your life. This knowledge may help us learn more about how to best support women with similar experiences.

V. STUDY PROCEDURES

How is the study done?
If you choose to participate in this study, we will ask you to participate in two in-depth interviews consisting of questions to find out more about your experiences of the relationship with your infant. Each interview will take between 45-75 minutes, thus, the total time of participation will be between one and a half and two and a half hours. All interviews will be conducted at B.C Women’s Hospital, in either a
meeting room that will be booked for the interview or your own room that is assigned to you depending on what feels the most comfortable to you. Interviews will be scheduled at a date and time that is convenient for you, as long as it does not interfere with any mandatory treatment activities that you are involved in. Visits will be scheduled within the first six months postpartum with visits up to one to two weeks apart from each other.

During the first interview, we will ask you about your experience of infant-bonding and engage you in a conversation about your thoughts, feelings, and perspective on this process. During the second interview, you can elaborate or expand on any information you shared in the first interview. We will also provide you with a short overview of the content discussed in your first interview to further engage in a discussion of your experience of the mother-baby relationship. Interviews will be audio-recorded so that information shared during this time can be accessed and explored at a later time-point. This consent form includes giving permission to take part in the research interviews and to the audio-recording of the interviews.

Any information that is shared with us during your interviews is kept confidential from your healthcare professionals at B.C. Women’s Hospital, with the exception of the limitations to confidentiality, which are listed in section IX. Confidentiality. Similarly, your treatment providers will not share any information about your healthcare treatment with us.

Who has access to your files and where will they be stored?
Audio-files and any notes from the interview will be kept in a secure location, including a stored cabinet, password-protected computer, and locked room in the Co-Investigator’s office at B.C. Women’s Hospital. Only the Principal Investigator and Co-Investigator of this study will have access to these files. After completion of the study, files will be stored for a minimum of 5 years after publication with the Principal Investigator in the Department of Counselling Psychology, and Special Education at the University of British Columbia. After this time period, electronic, audio, and any other files will be disposed of securely.

A unique non-identifying code will be assigned to each participant, which will be used to label audiotapes and any notes. A master file linking participant names and their assigned code will be kept in a password-protected file, on a password-protected computer, in a locked room at B.C. Women’s Hospital until completion of the study. After study completion, these will be stored with the Principal Investigator in the Department of Counselling Psychology, and Special Education at the University of British Columbia.

VI. STUDY RESULTS
The results of this study will be reported as part of a graduate thesis, presented at a psychological conference(s), and may also be published in an academic journal. Lessons learned from this research will also be shared with interested participants and healthcare professionals at B.C. Women’s Hospital. You may receive a summary of the results by providing consent for us to send you a short overview of the study results by either mail or e-mail. No identifying information will be shared during this process. The goal of sharing this information through academic and non-academic means is that those working directly with women in pregnancy and the postpartum period may benefit from learning about the information found in this study and that women who are in their immediate postpartum period may also benefit from hearing about the experiences of other mothers in similar situations.
VII. POTENTIAL RISKS OF THE STUDY

What are potential risks of participating in this study?

We are hoping to find out more about your experience of the mother-baby relationship. Having a discussion about this experience may result in an increased risk of experiencing emotional distress (e.g. sadness, anxiety, guilt, shame, etc.). You are encouraged to let the study staff know if you have any concerns. You do not have to answer any questions if you do not want to. You may access available counselling support from Fir Square Combined Care Unit during your stay at B.C. Women’s Hospital in the event that you feel distressed or upset by your participation in this study. We will also provide you with a list of possible resources for counselling services within the community for after you stay at Fir Square Combined Care Unit. In order to make sure that you receive the best support possible, we will encourage you to reach out to your treatment team and with your permission, we may notify your treatment team that you would like to receive some support around the feelings that have come up for you.

We will assure your privacy and confidentiality to the best of our ability. However, since you are a patient at B.C. Women’s Hospital and the interviews will be conducted at this site, staff or other patients may inadvertently know you are participating in this study. In order to ensure privacy and confidentiality as much as possible, interviews will be conducted in a private room on site.

VIII. POTENTIAL BENEFITS OF THE STUDY

What are the benefits of participating?

There are no direct benefits of participating in this study. However, some people find that through the process of sharing their experience they are able to gain greater insight and reflection on their experience and feelings surrounding this. This may be considered a benefit if greater insight and reflection seems of benefit to you. We are hoping that after this study is completed, other women like you may benefit from what we have learned in this study by hearing about your experience, as well as healthcare professionals who may benefit from gaining increasing knowledge about how to best support new mothers.

IX. CONFIDENTIALITY

How will your identity be protected and privacy be maintained?

Your identity will be kept strictly confidential. Information that discloses your identity will not be released without your consent unless required by law. However, as part of participating in this research, staff and other patients at B.C. Women’s Hospital may see you participating in the research interviews, even though they will be conducted in a private meeting space (e.g. a designated meeting room or your own room).

All information that is gathered in the interview will be recorded, transcribed, and kept in a password-protected file on a password-protected computer. The audio files themselves will be taken off the recorder, and transferred onto a password-protected computer. The transcripts and audio files will not contain any identifying information. The master file linking participant names to their unique non-identifying code and the consent forms will be kept separately from any data gathered from the interviews. The master file will be stored in a password-protected file on a password-protected computer and the consent forms will be stored in a locked cabinet in a locked room at B.C. Women’s Hospital until
completion of the study. After study completion, these will be stored with the Principal Investigator in the Department of Counselling Psychology, and Special Education at the University of British Columbia. Participants will not be identified by name in any reports of the completed study.

At any point in the study, if you reveal that there has been an incident that involves abuse and/or neglect of a child or an elderly person (or that there is risk of such occurring), please be advised that the researcher must, by law report this information to the appropriate authorities. The information will be reported to the appropriate Director at B.C. Women’s Hospital, who will then assist in notifying the appropriate authorities if needed. Other limits to confidentiality include if you are at harm of hurting yourself (harm to self) or someone else (harm to others), as well as if records are subpoenaed by Court.

X. PAYMENT
Will you be reimbursed for taking part in this research study?
There will be no payment for taking part in this research study. However, in order to thank you for participating in both interviews as part of this study, you will be provided with a $20 gift card for either Safeway or Starbucks depending on your choice. You will receive a $10 gift card for each interview, so if you only complete one interview, you will still receive one $10 gift card.

XI. CONTACT FOR INFORMATION ABOUT THE STUDY
Who can you contact if you have questions about the study?
If you have any questions or concerns about what we are asking of you, you may contact the Co-Investigator or the Principal Investigator for this study. The names and telephone numbers are listed at the top of this form.

XII. CONTACT FOR COMPLAINTS
Who can you contact if you have complaints or concerns about the study?
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.
XIII. PARTICIPANT CONSENT AND SIGNATURE PAGE

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to withdraw from the study at any time without giving a reason and without any negative impact on your access to services from B.C. Women’s Hospital.

Your signature below indicates that you have received a copy of this consent form for your own records. Your signature also indicates that you consent to participate in this study, including the audio-recording of the interviews.

______________________________________________________________
Participant Signature    Date

______________________________________________________________
Printed Name of the Participant signing above    Date

Would you like to receive an overview of the study once it is available?

We are able to provide you with a short overview of the study including its main findings once the study is completed and results are analyzed. If you would like to receive a copy of the study overview, please provide either your e-mail or a mailing address to which we can send this overview.

E-mail address: ____________________________________________________________

Mailing address: ___________________________________________________________
                                                                                     ___________________________________________________________
                                                                                     ___________________________________________________________
                                                                                     ___________________________________________________________

Your signature below indicates that you consent to receiving a copy of the study overview either by e-mail or mail.

______________________________________________________________
Participant Signature    Date

______________________________________________________________
Printed Name of the Participant signing above    Date
Appendix C: Screening Protocol
Thank each person for their interest and explain that I will have to ask a few questions in order to make sure that they meet eligibility criteria for this research.

Today’s Date: ________________________________
Patient Name: ________________________________
Room Number: ________________________________
Phone Number: ________________________________

Questions that will be asked include the following:

1. Are you 19 years of age or older?
   a. Yes___________
   b. No___________

2. Have you had a child in the past six months?
   a. Yes___________ Delivery Date & Gender_______
   b. No___________
   
   If no: Would you like me to tell you a little bit about the study and then you can contact me after your delivery if you are still interested in participating?

3. Have you had problems in the past or are you currently having problems with substance use?
   a. Yes___________
      i. Past___________ Current___________
      ii. Details_________________________
   b. No___________
4. Have you had problems in the past or are you currently having problems with mental health? This may include mood disturbances and emotional difficulties that are interfering with your life. Examples may be feelings of depression or anxiety.
   a. Yes__________
      i. Past__________ Current__________
      ii. Details_________________________________
   b. No__________

5. Would you be willing to share your experience of the mother-baby relationship with us?
   a. Yes__________
   b. No__________

6. Will you be able to participate in two interviews while you are still a patient at B.C. Women’s Hospital? (Interviews are conducted about one to two weeks apart.)
   a. Yes_________
      i. Expected discharge date: ___________________________
   b. No_________
      i. Expected discharge date: ___________________________

7. Would you be willing to meet with me in person for two interviews that will each last approximately 45-75 minutes in length?
   a. Yes__________
   b. No__________

8. Do you have any questions for me?
   __________________________________________________________________________
   __________________________________________________________________________
Provide a brief overview of the consent form for the study, including risks and benefits, time commitment, procedures, and other relevant information. Encourage patient to review a copy of the consent form kept at the main desk on Fir Square Combined Care Unit. This will allow them the opportunity to review the entire consent form before the first scheduled interview.

Day and Time of Meeting #1:________________________________________

Day and Time of Meeting #2:________________________________________

Preferred Type of Gift Card (#1):____________________________________

Preferred Type of Gift Card (#2):____________________________________
Appendix D: Interview Guide

Read Aloud:

- This interview will be unstructured in nature.
- The interview is not limited by this protocol and a checklist of topics only serves as guidance for what is to be covered in the interview, without any particular order or script.

Opening Statement

We want to hear about your experience of the mother-baby relationship and how you would describe your connection to your child since you have given birth. There are many ways to describe your relationship with your infant and this is a time when you can share what this process feels like in your own words. There is no right or wrong way to describe your early experiences with your infant and we understand that this may change over time as well. I will ask you several questions about your early experiences with your infant as a guide for our discussion today. You can ask for clarification if needed and you can choose to not answer a question for any reason.

For Myself:

The research question I will keep in mind is as follows: “How do mothers with substance use and mental health problems experience bonding with their infant?”
Topic A: Introductory Question

<<< Ice-breaker questions >>>

1. Can you tell me a little bit about yourself and your background?
2. What interested you in participating in this research?

Topic B: General Question about the Early Mother-Baby Experiences

<<< To share information about early maternal-infant experiences >>>

1. Now that you have given birth to your baby, there is a new person in your life. What has that been like for you?
   a. How would you describe your relationship with your baby and which words would you use to describe this relationship?
   b. What is it like to be a mother?

Topic C: Maternal-Infant Bonding Question

<<< To discuss the experience of maternal-infant bonding and gather information on what this experience means for each participant >>>

1. Some people describe their relationship with their baby in terms of the word ‘bonding’. What does bonding mean to you?
2. How does the word ‘bonding’ fit with your experience and in which way does it not fit with your experience?
   a. If bonding is a word you would use to describe your relationship with your infant, what does bonding feel like to you?
      i. When did you first feel bonded to your child?
ii. Can you tell me about a specific time when you felt bonded to your baby

or wished that you did?

3. Some people describe their relationship with their baby in terms of falling in love with

their child. If this applies to you, how did you come to find love for your child?

**Topic D: Strength-Based Question**

<<<To offer opportunity to think about the future relationship with the child>>>

1. What would you like your child to know about you?

2. What activities would you like to enjoy with your child five years from now?

**Topic E: Reflection Question**

<<<To offer opportunity to add any additional information about their experience of infant
bonding and to reflect on what it was like for them to take part in this interview>>>

1. Would you like to add any additional information to our discussion about your

experience of bonding with your infant at this point?

2. What was it like to take part in this interview?
## Appendix E: Resources

### Referral List of Community Resource Services

<table>
<thead>
<tr>
<th>Emergency Services</th>
<th>9-1-1</th>
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</thead>
<tbody>
<tr>
<td>Police, Ambulance</td>
<td>1-800-784-2433 (1-800-SUICIDE)</td>
</tr>
<tr>
<td>B.C. Suicide Line</td>
<td></td>
</tr>
<tr>
<td>BC Mental Health Distress Line (24 hours- live person)</td>
<td>310-6789 (no area code)</td>
</tr>
<tr>
<td>Women Against Violence Against Women</td>
<td>604-255-6344</td>
</tr>
<tr>
<td></td>
<td>1-800-563-0808</td>
</tr>
<tr>
<td><strong>Emergency Food and Shelter</strong></td>
<td></td>
</tr>
<tr>
<td>Ministry of Employment &amp; Income Assistance</td>
<td>604-660-3194 or 1-866-660-3194 (after 4:30 pm) *has availability status of all Lower Mainland transition houses for women</td>
</tr>
<tr>
<td>Homeless Shelter and Street Help Line</td>
<td>604-836-6381 (24 hours/day)</td>
</tr>
<tr>
<td>New Westminster Office</td>
<td>604-664-0135 (8:30 am - 4:30 pm)</td>
</tr>
<tr>
<td>Tri-Cities Office</td>
<td>604-664-0135 (8:30 am – 4:30 pm)</td>
</tr>
<tr>
<td>Mental Health Emergency Service/ Car 87*</td>
<td>604-874-7307 (Vancouver only)</td>
</tr>
<tr>
<td>Crisis Intervention and Suicide Prevention Centre of B.C.</td>
<td>604-872-3311 or 1-800-784-2433 (24 hour distress line)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.crisiscentre.bc.ca">www.crisiscentre.bc.ca</a></td>
</tr>
<tr>
<td>Fraser Health Region Crisis Line</td>
<td>604-951-8855 (24 hour distress line- Burnaby-Boston Bar)</td>
</tr>
<tr>
<td>Chimo Richmond Crisis Line</td>
<td>604-279-7070 (8am to midnight)</td>
</tr>
</tbody>
</table>

*Car 87: Mobile crisis response and emergency service that assesses mental illness, helps those in crisis, and provides referrals to appropriate resources.

<p>| Non-Emergency Services                     |                                                                      |
|--------------------------------------------|                                                                      |
| Burnaby Mental Health and Addiction Services | 604-453-1900                                                        |
| BC Alcohol and Drug Information and Referral | 604-660-9382 (Vancouver) 1-800-663-1441 (rest of BC) (24 hours/day) |
| Pacific Postpartum Support Society         | 604-255-7999 or 855-255-7999 (10am-3pm Mon-Fri)                     |
|                                            | <a href="http://www.postpartum.org/">http://www.postpartum.org/</a>                                          |
| Health Link BC                             | 8-1-1 (24 hours/day- non-emergency health information)              |
|                                            | <a href="http://www.HealthLinkBC.ca">www.HealthLinkBC.ca</a>                                                 |
| Ministry of Child and Family Development (MCFD) Child Protections/ Parental Crisis | 604-660-4927 (Vancouver, North Shore, Richmond) 604-660-8190 (Lower Mainland from Burnaby &amp; Delta in the west to Maple Ridge and Langley in the east) 1-800-663-9122 (rest of the province) |</p>
<table>
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<tr>
<th><strong>Helpline for Children</strong></th>
<th>604-279-7070 (24 hours/day)</th>
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<tbody>
<tr>
<td><strong>Bereavement Hotline</strong></td>
<td>604-738-9950 (9am-5pm Mon-Fri)</td>
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<td>1-877-779-2223</td>
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**Mental Health Services (Free Services)**

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<tbody>
<tr>
<td><strong>Vancouver</strong></td>
<td>604-675-3898</td>
</tr>
<tr>
<td><strong>New Westminster</strong></td>
<td>604-777-6800</td>
</tr>
<tr>
<td><strong>Maple Ridge</strong></td>
<td>604-467-6034</td>
</tr>
<tr>
<td><strong>UBC New Westminster Clinic</strong></td>
<td>604-525-6651</td>
</tr>
<tr>
<td><strong>Fraser Health</strong></td>
<td>604-514-7940</td>
</tr>
<tr>
<td><strong>TriCities</strong></td>
<td>604-777-8400</td>
</tr>
<tr>
<td><strong>SFU Surrey</strong></td>
<td>604-587-7320</td>
</tr>
<tr>
<td><strong>UBC Vancouver</strong></td>
<td>604-822-3811</td>
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**Counselling Resources (Paid Services)**

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<tr>
<td><strong>Family Services of Greater Vancouver</strong></td>
<td>604-874-2938</td>
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<tr>
<td></td>
<td><a href="http://www.fsgv.ca/">http://www.fsgv.ca/</a></td>
</tr>
<tr>
<td><strong>Family Services of the North Shore</strong></td>
<td>604-988-5281</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.familyservices.bc.ca/">http://www.familyservices.bc.ca/</a></td>
</tr>
<tr>
<td><strong>Jewish Family Service Agency</strong></td>
<td>604-257-5151</td>
</tr>
<tr>
<td><strong>B.C. Association of Clinical Counsellors</strong></td>
<td><a href="http://www.bc-counsellors.org">www.bc-counsellors.org</a></td>
</tr>
<tr>
<td><strong>British Columbia Psychological Association</strong></td>
<td><a href="http://www.psychologists.bc.ca/find_psychologist_full">http://www.psychologists.bc.ca/find_psychologist_full</a></td>
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**Online Resources**

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<tr>
<td><strong>Canadian Mental Health Association (BC)</strong></td>
<td><a href="http://www.cmha.bc.ca">http://www.cmha.bc.ca</a></td>
</tr>
<tr>
<td><strong>“Here to Help”: Mental Health Information (BC)</strong></td>
<td><a href="http://www.heretohelp.bc.ca">http://www.heretohelp.bc.ca</a></td>
</tr>
<tr>
<td><strong>Kelty Resource Centre</strong></td>
<td><a href="http://www.keltymentalhealth.ca">http://www.keltymentalhealth.ca</a></td>
</tr>
<tr>
<td></td>
<td>604-875-2084</td>
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</tbody>
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